



TOYOTA

ELECTRICAL WIRING DIAGRAM

1983 Commercial Vehicles

FOREWORD

This booklet contains electrical wiring diagrams for all commercial vehicles of Toyota vehicles except USA and Canada.

Each wiring diagram is shown by simple fuse circuit, short line, and rough sketch so as to make it easy to see. Please use this booklet together with body repair manuals for repair or inspection of electrical problems.

All information contained in this booklet is based on the latest information available at the time of publication. Toyota reserves the right to make changes without notice.

TOYOTA MOTOR CORPORATION

1

AVANT-PROPOS

Le présent livret contient les schémas de câblage pour toutes les voitures commerciaux de Toyota, sauf pour les E.U.A. et le Canada.

Afin de faciliter la compréhension, chaque schéma de câblage est présenté sous forme de circuit simple de fusible et du fil court et dessiné sommairement. Lors d'une utilisation de ce livret pour la réparation ou l'inspection des pannes électriques, prière de consulter les manuels d'entretien et de réparation de la carrosserie.

Tous les renseignements donnés dans ce livret ont été mis à jour au moment de l'impression. Cependant, nous reservons le droit de procéder à tout moment et sans préavis à des modifications.

TOYOTA MOTOR CORPORATION

1983 TOYOTA ELECTRICAL WIRING DIAGRAM

COMMERCIAL VEHICLES

INTRODUCTION 1

PARTS LIST 2

BUV 3

LITEACE 4

MODEL F 5

TOYOACE 6

HIACE 7

HILUX 8

STOUT 9

LAND CRUISER (40) 10

LAND CRUISER (60) 11

DYNA 12

COASTER 13

TRUCK 14

INTRODUCTION

NOTE THE FOLLOWING WHEN READING THE WIRING DIAGRAMS

1. PARTS LIST

System Mark	NO.	COMPONENTS	System Title
	1	DISTRIBUTOR	Ignition
	2	IGNITER	
	3	IGNITION COIL	
	4	IGNITION COIL (With Resistor)	
Part Number	5	PICKUP COIL	
	55	CONDENSER	
	64	RESISTOR	
	1	BACK DOOR S/W	Interior Light
	2	CENTER DOOR INDICATOR LIGHT	
	3	CENTER DOOR INDICATOR LIGHT S/W	
	4	DOOR COURTESY LIGHT, FRONT	
	5	DOOR COURTESY S/W, FRONT	
	6	DOOR COURTESY S/W, FRONT RH	
	7	DOOR COURTESY S/W, FRONT LH	
	8	DOOR COURTESY S/W, REAR RH	
	9	DOOR COURTESY S/W, REAR LH	

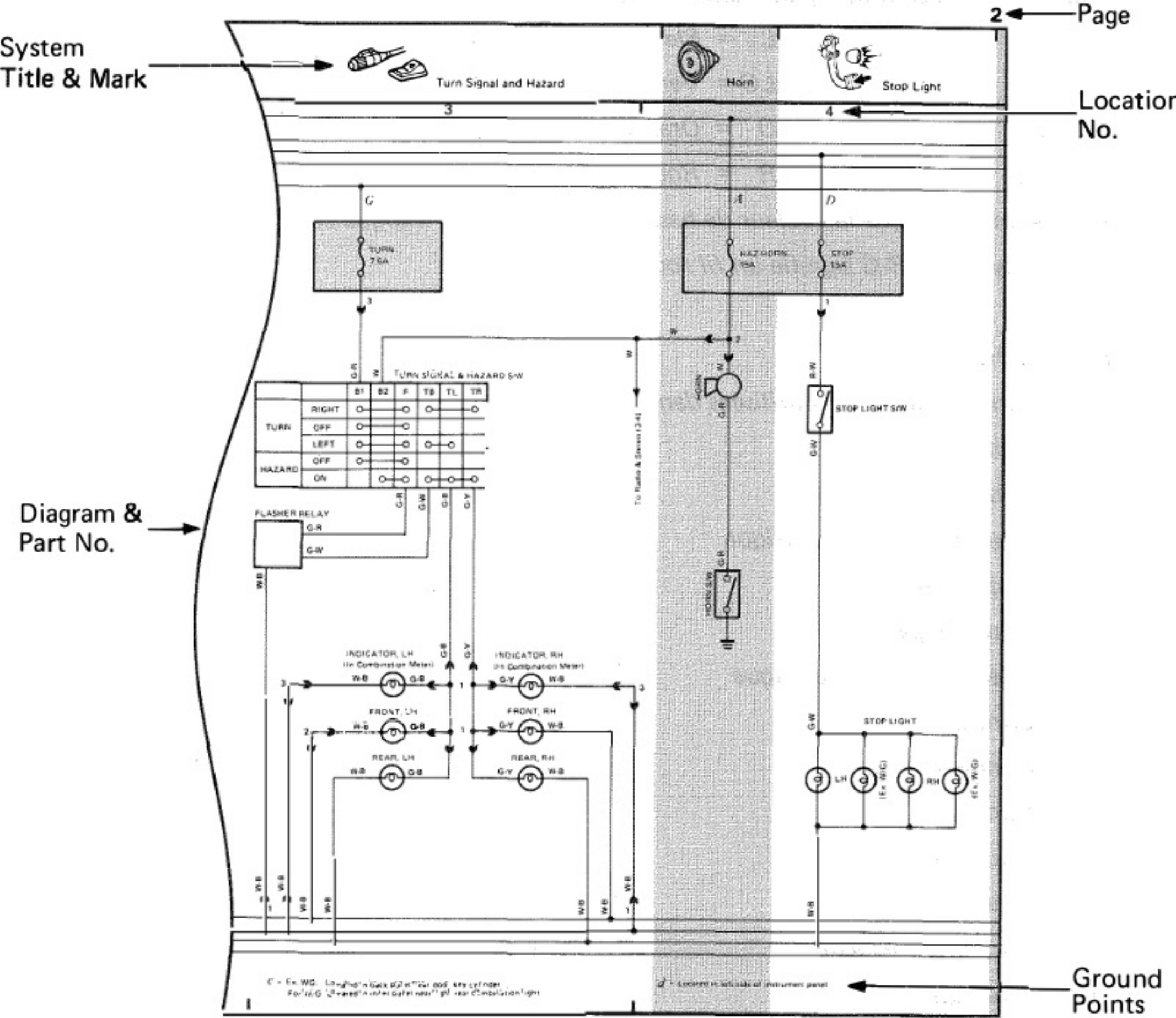
- (1) PARTS LIST can be used for all models.
- (2) System Titles are arranged in alphabetical order in the PARTS LIST.
- (3) Parts used in a single system only begin from No. 1 while those used in two or more systems begin from No. 50.

2. SYSTEM INDEX

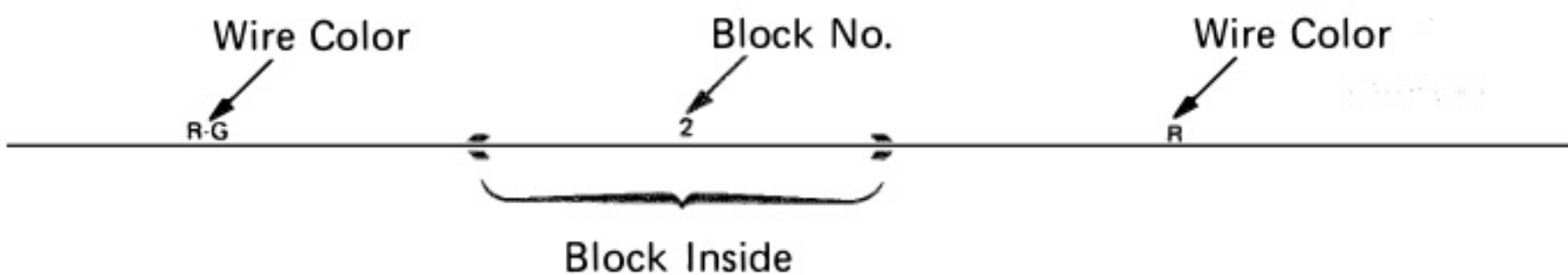
SYSTEMS	LOCATION	System Location
Air Conditioner, Cooler and Heater	1-6, 2-1	
Automatic Door	3-5	
Back-up Light	2-5	
Charging and Choke Heater Coil	1-3, 4-3	
CIG. Lighter	3-8	
Clock	3-7	

- (1) A SYSTEM INDEX can be found at the beginning of the diagrams for each model.
- (2) System Titles are arranged in alphabetical order in the SYSTEM INDEX.
- (3) The figures under LOCATION designate the page and location for each model.
- Example: 4-5 Page 4. Location No. 5

3. WIRING DIAGRAM



- (1) The DIAGRAM is divided according to each system.
- (2) Junction Block or Relay Block.



- (3) Part Numbers
- a. The part numbers in the DIAGRAM correspond to those in the PARTS LIST.
- b. Part nomenclatures in the diagram are written in English only. By referring to the part number, the French, German or Spanish equivalent can be found in the respective PARTS LIST.

4. WIRE COLOR

Wire colors are indicated by an alphabetical code.

B = Black L = Light Blue W = White

BR = Brown LG = Light Green Y = Yellow

G = Green O = Orange P = Pink

GR = Grey R = Red V = Violet

The 1st letter indicates the basic wire color and the 2nd indicates the stripe color.

Example: R-G indicates a Red wire with a Green stripe.

5. ABBREVIATION

The following abbreviations are used in this wiring diagram.

A/C = Air Conditioner PKB = Parking Brake

A/P = Air Purifier RH = Right-hand

A/T = Automatic Transmission RHD = Right-hand Drive Vehicles

CB = Circuit Breaker SC = Spark Control

C/P = Coupe Type S/D = Sedan Type

EDIC = Electrical Diesel Injection TEMP = Temperature

EUR = Europe TP = Throttle Positioner

FL = Fusible Link UPR = Upper

GEN = General VPS = Variable Power Steering

IG = Ignition VSV = Vacuum Switching Valve

LH = Left-hand W/G = Wagon Type

LHD = Left-hand Drive Vehicles

LWR = Lower

6. OTHERS

- (1) Legend in the bracket () of the wiring diagram shows the location of mating connection.
- (2) Broken lines in the wiring diagram are for varied models or optional equipment.

NOTE THE FOLLOWING WHEN REPAIRING THE WIRE

1. ALLOWABLE CURRENT – CARRYING CAPACITIES OF WIRES

Finished Outside Diameter mm (in.)	Allowable Current (A) (Maximum Load at 12V)
2.2 (0.087)	9 (110W)
2.4 (0.095)	12 (140W)
2.7 (0.106)	15 (180W)
3.1 (0.122)	20 (240W)
3.8 (0.150)	27 (320W)

2. HANDLING AND INSPECTION PROCEDURES

- (1) Pulling apart connectors
- Hold the housings and pull apart. If provided with lock, release the lock first.

CAUTION

1. Do not pull the wiring harness.
2. Pull apart straight and do not twist sideways.

(2) Joining together connectors

- 1) Make sure that the connectors are positioned in correct direction and insert in all the way without twisting or prying.
- 2) For connectors provided with locks, insert until the locks actuate and then check to see if properly locked.

(3) Circuit inspection

When checking with circuit tester, the tester probe should always be inserted from the wiring harness side.

CAUTION

Never insert the tester probe from the terminal side of the connector.

(4) Others

Never attempt to insert an individual terminal (not set in housing) into a connector. This could distort the terminal and result in defective contact.

PARTS LIST

ELECTRICAL WIRING DIAGRAM — 1983 PRODUCTION VEHICLE



NO.	COMPONENTS
Air Brake	
1	AIR PRESSURE S/W
2	BOOSTER STROKE INDICATOR S/W
3	BY-PASS VALVE S/W
4	SEDIMENTER INDICATOR LIGHT
51	BRAKE FLUID LEVEL S/W
52	BRAKE WARNING LIGHT
53	BULB CHECK RELAY
62	PKB WARNING LIGHT
63	PKB WARNING LIGHT S/W
69	VACUUM S/W
70	VACUUM WARNING BUZZER



NO.	COMPONENTS
Air Conditioner, Cooler and Heater	
1	A/C AMPLIFIER
2	A/C CUT RELAY
3	A/C MAIN RELAY
4	A/C RELAY
5	A/C S/W
6	AIR INTAKE CONTROL S/W
7	AIR INTAKE INDICATOR LIGHT
8	AIR INTAKE SERVO MOTOR
9	BLOWER MOTOR RESISTOR
10	CONDENSER MAIN RELAY
11	CONDENSER MOTOR
12	COOLER AMPLIFIER
13	COOLER BLOWER MOTOR
14	COOLER CONTROL BOX
15	COOLER CONTROL S/W
16	COOLER INDICATOR LIGHT
17	COOLING FAN MOTOR
18	COOLING FAN RELAY
19	EVAPO MOTOR
20	EVAPO RELAY
21	HEATER BLOWER MOTOR
22	HEATER BLOWER S/W
23	HEATER RELAY
24	IDLE-UP RELAY
25	IDLE-UP SOLENOID
26	IDLE-UP S/W
27	IDLE-UP VSV
28	LOW PRESSURE CUT S/W
29	MAGNET CLUTCH
30	MAGNET RELAY
31	PRESSURE S/W
32	WATER TEMP RELAY
33	MAGNETIC VALVE, FRONT
34	REFRIGERATOR
35	TOWN S/W
55	CONDENSER
59	IG MAIN RELAY
64	RESISTOR
68	THERMO S/W
72	VSV
73	THERMISTOR
74	VOLUME S/W



NO.	COMPONENTS
Antenna Motor	
1	ANTENNA MOTOR
2	ANTENNA MOTOR S/W



NO.	COMPONENTS
Automatic Door	
1	ACCEL INTERLOCK
2	ACCEL INTERLOCK RELAY
3	AUTOMATIC DOOR CONTROL BOX
4	AUTOMATIC DOOR S/W
5	DOOR WARNING BUZZER
67	SPEED SENSOR
75	POWER MAIN RELAY



NO.	COMPONENTS
Back-up Light	
1	BACK-UP BUZZER
2	BACK-UP LIGHT
3	BACK-UP LIGHT, RH
4	BACK-UP LIGHT, LH
5	BACK-UP LIGHT S/W
6	BUZZER REVERSE WARNING



NO.	COMPONENTS
Carburetor	
56	FUEL CUT SOLENOID
71	HEATER CHOKE COIL
76	OUTER VENT CONTROL VALVE



NO.	COMPONENTS
Charging	
1	ALTERNATOR
2	ALTERNATOR (With IC Regulator)
3	CHARGE LIGHT RELAY
4	ENGINE MAIN RELAY
5	MAIN RELAY
6	REGULATOR
54	CHARGE WARNING LIGHT
55	CONDENSER
56	FUEL CUT SOLENOID
59	IG MAIN RELAY
71	HEATER CHOKE COIL
76	OUTER VENT CONTROL VALVE



NO.	COMPONENTS
CIG. Lighter	
1	CIGARETTE LIGHTER
64	RESISTOR



NO.	COMPONENTS
Clock	
1	CLOCK (Analog)
2	CLOCK (Digital)



NO.	COMPONENTS
Combination Meter	
1	AIR CLEANER WARNING LIGHT
2	AIR CLEANER WARNING LIGHT S/W
3	BRAKE FLUID PRESSURE S/W
4	CANCEL S/W
5	CHOKE WARNING LIGHT
6	CHOKE WARNING LIGHT S/W
7	FUEL GAUGE
8	FUEL LEVEL SENDER
9	OIL PRESSURE GAUGE
10	OIL PRESSURE SENDER
11	OIL PRESSURE WARNING LIGHT
12	OIL PRESSURE WARNING LIGHT S/W
13	PICKUP SENSOR
14	SEDIMENTER WARNING BUZZER
15	SEDIMENTER WARNING S/W
16	TACHOMETER
17	TIMING BELT WARNING LIGHT
18	VOLTMETER
19	WATER TEMP GAUGE
20	WATER TEMP SENDER
21	4WD INDICATOR LIGHT
22	4WD INDICATOR LIGHT S/W
23	BULB CHECK S/W
24	ECONOMY METER WARNING LIGHT
25	FUEL LEVEL WARNING LIGHT
26	FUEL LEVEL WARNING LIGHT S/W
27	OIL PRESSURE S/W
28	RADIATOR FLUID LEVEL WARNING LIGHT
29	RADIATOR FLUID LEVEL WARNING LIGHT S/W
51	BRAKE FLUID LEVEL S/W
52	BRAKE WARNING LIGHT
53	BULB CHECK RELAY
54	CHARGE WARNING LIGHT
55	CONDENSER
58	GLOW PLUG INDICATOR LIGHT
62	PKB WARNING LIGHT
63	PKB WARNING LIGHT S/W
65	SEDIMENTER WARNING LIGHT
66	SEDIMENTER WARNING LIGHT S/W
69	VACUUM S/W
70	VACUUM WARNING BUZZER



NO.	COMPONENTS
Condition Indicator	
1	BATTERY SENSOR
2	BATTERY WARNING LIGHT
3	CONDITION INDICATOR COMPUTER
4	RADIATOR SENSOR
5	RADIATOR WARNING LIGHT
6	REAR LIGHT FAILURE WARNING LIGHT



NO.	COMPONENTS
Defogger	
1	DEFOGGER S/W
2	REAR WINDOW DEFOGGER



NO.	COMPONENTS
Door Lock	
1	DOOR LOCK CONTROL S/W
2	DOOR LOCK MOTOR
3	DOOR LOCK S/W
4	DOOR LOCK SOLENOID



NO.	COMPONENTS
Dump	
1	DUMP WARNING BUZZER
2	DUMP WARNING BUZZER S/W
3	GAUGE WEIGHT RECEIVER
4	GAUGE WEIGHT SENDER
5	PTO INDICATOR LIGHT
6	PTO INDICATOR LIGHT S/W



NO.	COMPONENTS
EDIC	
1	EDIC MOTOR
2	EDIC RELAY
3	OIL PRESSURE S/W
57	FUSIBLE LINK
59	IG MAIN RELAY



NO.	COMPONENTS
Emission Control	
1	EMISSION CONTROL COMPUTER
2	EMISSION CONTROL RELAY
3	TOP S/W
4	VSV (EGR)
5	VSV (TCS)
6	VSV (TP)
7	WATER TEMP S/W
9	VSV (SC)
56	FUEL CUT SOLENOID
67	SPEED SENSOR
68	THERMO S/W
69	VACUUM S/W
71	HEATER CHOKE COIL
72	VSV
76	OUTER VENT CONTROL VALVE



NO.	COMPONENTS
Exhaust Brake	
1	EXHAUST BRAKE ACCEL S/W
2	EXHAUST BRAKE BUTTERFLY SOLENOID
3	EXHAUST BRAKE CLUTCH S/W
4	EXHAUST BRAKE COMPUTER
5	EXHAUST BRAKE GENERATOR
6	EXHAUST BRAKE INDICATOR LIGHT
7	EXHAUST BRAKE MAIN S/W
8	EXHAUST BRAKE NEUTRAL START S/W
9	EXHAUST BRAKE RETARDER RELAY
10	EXHAUST BRAKE SOLENOID
56	FUEL CUT SOLENOID
67	SPEED SENSOR



NO.	COMPONENTS
Fog Light	
1	FOG LIGHT, RH
2	FOG LIGHT, LH
3	FOG LIGHT S/W



NO.	COMPONENTS
Glow Plug	
1	DROPPING RESISTOR
2	GLOW PLUG
3	GLOW PLUG CONTROLLER
4	GLOW PLUG RELAY
5	GLOW PLUG RELAY (For After Glow)
6	GLOW PLUG S/W
7	GLOW PLUG TIMER
8	M4 RELAY
9	SENSING RESISTOR
10	WATER THERMO SENSOR
56	FUEL CUT SOLENOID
58	GLOW PLUG INDICATOR LIGHT



NO.	COMPONENTS
Headlight	
1	DIMMER RELAY
2	DIMMER S/W
3	HEADLIGHT, RH
4	HEADLIGHT, LH
5	HEADLIGHT RELAY
6	HIGH BEAM INDICATOR LIGHT
61	LIGHT CONTROL S/W

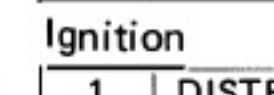


NO.	COMPONENTS
Headlight Cleaner	
1	HEADLIGHT CLEANER MOTOR
2	HEADLIGHT CLEANER RELAY

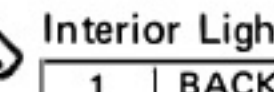


NO.	COMPONENTS
Horn	
1	HORN

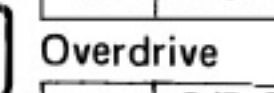
NO.	COMPONENTS
Horn, Hi	
2	HORN, Hi
3	HORN, Lo
4	HORN, RH
5	HORN, LH
6	HORN RELAY
7	HORN S/W



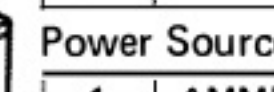
NO.	COMPONENTS
Ignition	
1	DISTRIBUTOR
2	IGNITER
3	IGNITION COIL
4	IGNITION COIL (With Resistor)
5	PICKUP COIL
55	CONDENSER
64	RESISTOR



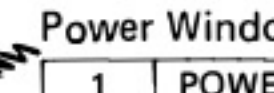
NO.	COMPONENTS
Interior Light	
1	BACK DOOR S/W
2	CENTER DOOR INDICATOR LIGHT
3	CENTER DOOR INDICATOR LIGHT S/W
4	DOOR COURTESY LIGHT, FRONT
5	DOOR COURTESY S/W, FRONT
6	DOOR COURTESY S/W, FRONT RH
7	DOOR COURTESY S/W, FRONT LH
8	DOOR COURTESY S/W, REAR RH
9	DOOR COURTESY S/W, REAR LH
10	DOOR COURTESY S/W, SLIDE RH
11	DOOR COURTESY S/W, SLIDE LH
12	INTERIOR LIGHT
13	INTERIOR LIGHT, REAR
14	INTERIOR LIGHT S/W
15	INTERIOR LIGHT S/W, REAR
16	LUGGAGE ROOM LIGHT
17	LUGGAGE ROOM LIGHT S/W
18	STEP LIGHT
19	BACK DOOR LIGHT
20	BACK DOOR LIGHT S/W
21	DOOR COURTESY LIGHT, RH
22	DOOR COURTESY LIGHT, LH
23	DOOR COURTESY S/W, BACK DOOR
24	DOOR COURTESY S/W, SLIDE DOOR
25	OPEN DOOR WARNING LIGHT
26	MAP LIGHT
27	MAP LIGHT S/W
60	INSPECTION LIGHT SOCKET



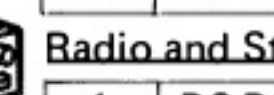
NO.	COMPONENTS
Overdrive	
1	O/D COMPUTER
2	O/D MAIN S/W
3	O/D OIL PRESSURE S/W
4	O/D SOLENOID
67	SPEED SENSOR



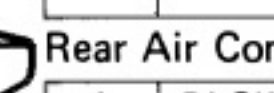
NO.	COMPONENTS
Power Source	
1	AMMETER
2	BATTERY
3	IGNITION S/W
57	FUSIBLE LINK



NO.	COMPONENTS
Power Window	
1	POWER WINDOW MASTER S/W
2	POWER WINDOW MOTOR
3	POWER WINDOW S/W

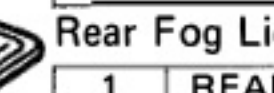


NO.	COMPONENTS
Radio and Stereo	
1	DC-DC CONVERTER
2	MICROPHONE
3	RADIO
4	RADIO & STEREO
5	SPEAKER
6	SPEAKER, FRONT RH
7	SPEAKER, FRONT LH
8	SPEAKER, REAR RH
9	SPEAKER, REAR LH
10	SPEAKER, RH
11	SPEAKER, LH
12	POWER AMPLIFIER

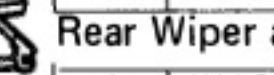


NO.	COMPONENTS
Rear Air Conditioner	
1	BLOWER MOTOR RESISTOR, REAR
2	HEATER BLOWER MOTOR, REAR

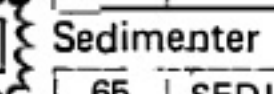
NO.	COMPONENTS
Heater Blower S/W & Indicator Light, Rear	
3	HEATER BLOWER S/W & INDICATOR LIGHT, REAR
4	HEATER BLOWER S/W, REAR
5	HEATER RELAY, REAR
6	HEATER S/W, REAR
7	MAGNETIC VALVE, REAR
8	A/C RELAY, REAR
9	A/C S/W, REAR
73	THERMISTOR
74	VOLUME S/W



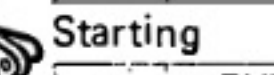
NO.	COMPONENTS
Rear Fog Light	
1	REAR FOG INDICATOR LIGHT
2	REAR FOG LIGHT
3	REAR FOG LIGHT RELAY
4	REAR FOG LIGHT, RH
5	REAR FOG LIGHT, LH
6	REAR FOG LIGHT S/W



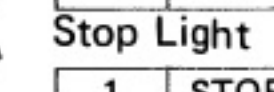
NO.	COMPONENTS
Rear Wiper and Washer	
1	WASHER MOTOR, REAR
2	WASHER S/W, REAR
3	WIPER MOTOR, REAR
4	WIPER S/W, REAR



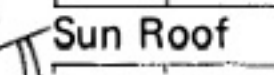
NO.	COMPONENTS
Sedimentar	
65	SEDIMENTER WARNING LIGHT
66	SEDIMENTER WARNING LIGHT S/W



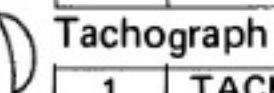
NO.	COMPONENTS
Starting	
1	NEUTRAL START S/W
2	OVER INJECTION MAGNET
3	STARTER MOTOR
4	STARTER RELAY
5	SUB STARTER S/W



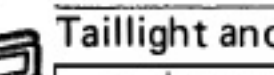
NO.	COMPONENTS
Stop Light	
1	STOP LIGHT S/W
2	STOP LIGHT, RH
3	STOP LIGHT, LH



NO.	COMPONENTS
Sun Roof	
1	SUN ROOF MOTOR
2	SUN ROOF S/W
75	POWER MAIN RELAY



NO.	COMPONENTS
Tachograph	
1	TACHOGRAPH
2	TACHOGRAPH LIGHT



NO.	COMPONENTS
Taillight and Illumination	
1	CIGARETTE LIGHTER LIGHT
2	CLEARANCE LIGHT, RH
3	CLEARANCE LIGHT, LH
4	COMBINATION METER LIGHT
5	COOLER CONTROL PANEL LIGHT
6	GLOVE BOX LIGHT
7	GLOVE BOX LIGHT S/W
8	HEATER CONTROL PANEL LIGHT
9	INSTRUMENT PANEL LIGHT
10	LICENSE PLATE LIGHT
11	LICENSE PLATE LIGHT, RH
12	LICENSE PLATE LIGHT, LH
13	OIL PRESSURE INDICATOR LIGHT
14	REAR COMBINATION LIGHTS FAILURE RELAY
15	RHEOSTAT
16	SPEEDOMETER LIGHT
17	SWITCH LIGHT
18	TACHOMETER LIGHT
19	TAILLIGHT, RH
20	TAILLIGHT, LH
21	TAILLIGHT RELAY
22	THERMOMETER INDICATOR LIGHT
23	WEIGHT METER LIGHT
24	A/T INDICATOR LIGHT
25	CLOCK LIGHT
26	RADIO LIGHT
27	REAR HEATER CONTROL PANEL LIGHT
28	O/D INDICATOR LIGHT
60	INSPECTION LIGHT SOCKET
61	LIGHT CONTROL S/W
64	RESISTOR



NO.	COMPONENTS
Thermometer	
1	THERMOMETER
2	THERMO SENSOR, FRONT
3	THERMO SENSOR, REAR



NO.	COMPONENTS
Trailer Socket	
1	TRAILER SOCKET
2	TRAILER SOCKET CHANGE OVER S/W



NO.	COMPONENTS
Turn Signal and Hazard	
1	FLASHER RELAY
2	HAZARD RED INDICATOR LIGHT
3	HAZARD RED INDICATOR LIGHT RELAY
4	HAZARD S/W
5	QUICK FLASHER RELAY
6	TURN SIGNAL LIGHT, FRONT RH
7	TURN SIGNAL LIGHT, FRONT LH
8	TURN SIGNAL LIGHT, INDICATOR RH
9	TURN SIGNAL LIGHT, INDICATOR LH
10	TURN SIGNAL LIGHT, REAR RH
11	TURN SIGNAL LIGHT, REAR LH
12	TURN SIGNAL LIGHT, SIDE RH
13	TURN SIGNAL LIGHT, SIDE LH
14	TURN SIGNAL RELAY, RH
15	TURN SIGNAL RELAY, LH
16	TURN SIGNAL S/W



NO.	COMPONENTS
Two-Speed	
1	TWO-SPEED INDICATOR LIGHT S/W
2	TWO-SPEED INDICATOR LIGHT, RH
3	TWO-SPEED INDICATOR LIGHT, LH

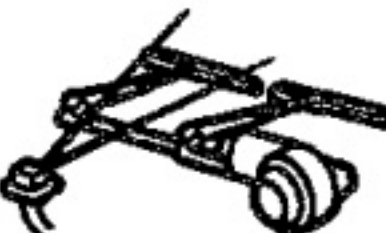


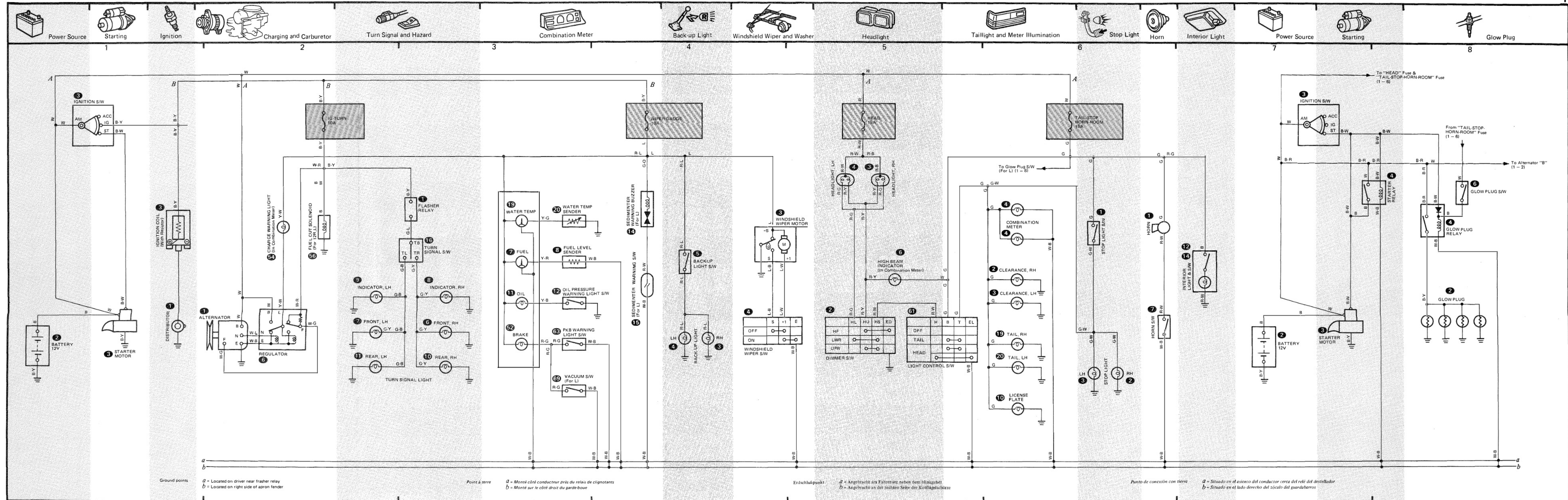
NO.	COMPONENTS
Winch	
1	MAGNET S

SYSTEM INDEX

BUV

1983 Production Vehicles (Page 1)

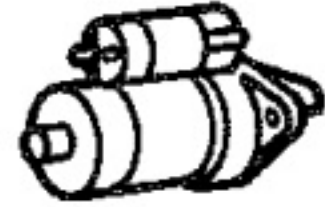
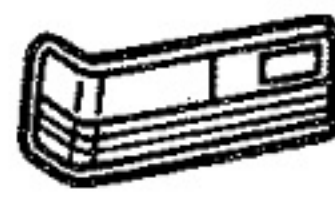
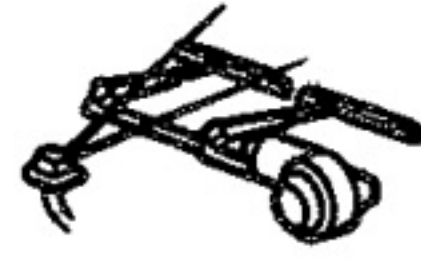
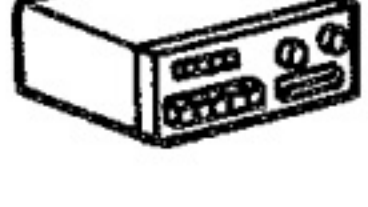
SYSTEMS	LOCATION	SYSTEMS	LOCATION
Back-up Light	 1-4		
Carburetor	 1-2		
Charging	 1-2		
Combination Meter	 1-3		
Glow Plug	 1-8		
Headlight	 1-5		
Horn	 1-6		
Ignition	 1-1		
Interior Light	 1-7		
Power Source	 1-1, 1-7		
Starting	 1-1, 1-8		
Stop Light	 1-6		
Taillight and Illumination	 1-6		
Turn Signal and Hazard	 1-3		
Windshield Wiper and Washer	 1-4		

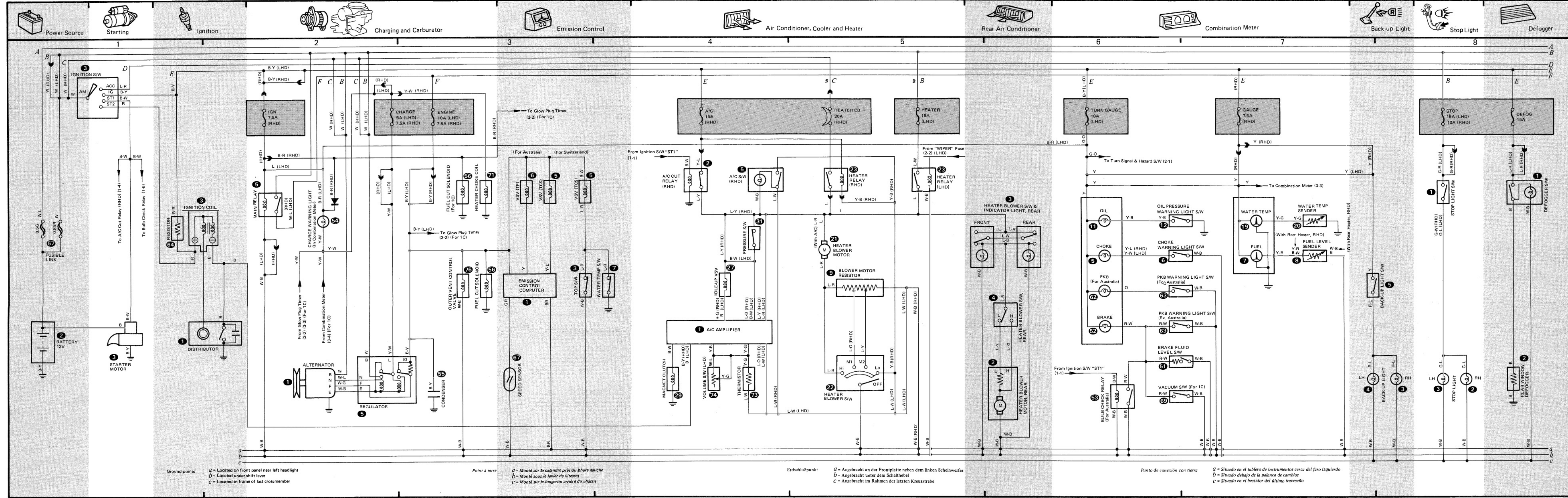


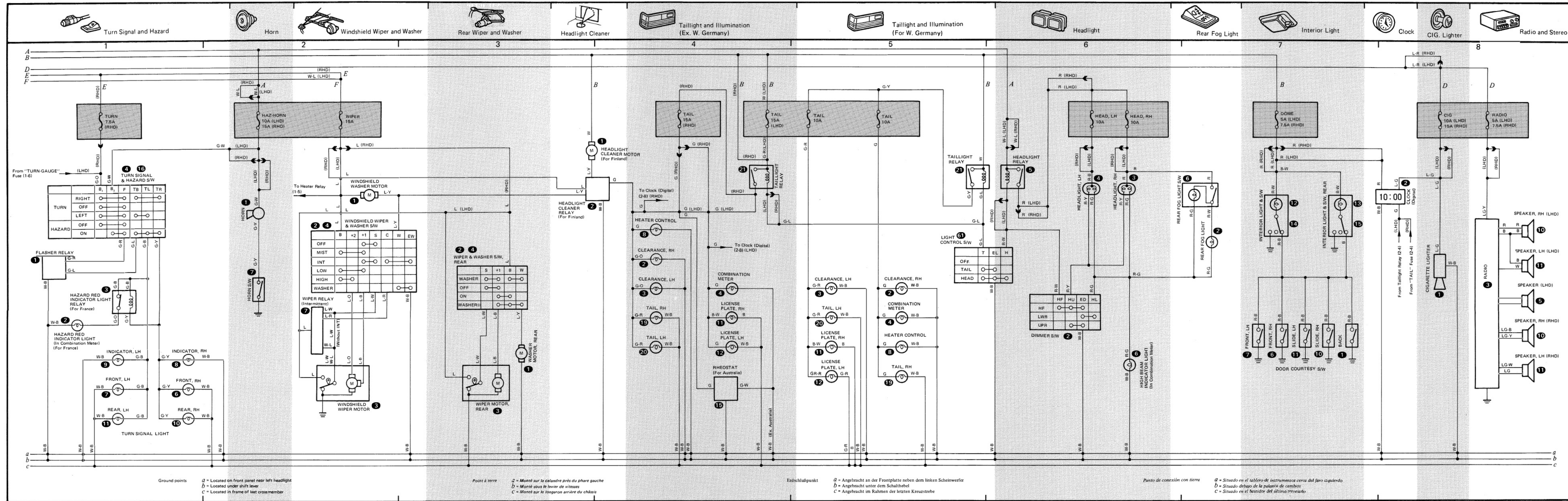
SYSTEM INDEX

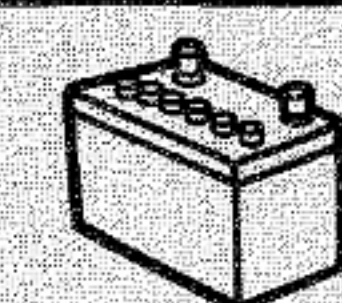
LITEACE

1983 Production Vehicles (Page 1 to Page 3)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-5	Rear Fog Light	 2-7
Back-up Light	 1-8	Rear Wiper and Washer	
Carburetor	 1-2	Starting	 1-1, 3-1
Charging	 1-2	Stop Light	 1-8
CIG. Lighter	 2-8	Taillight and Illumination	 2-4, 2-5
Clock	 2-8	Turn Signal and Hazard	 2-1
Combination Meter	 1-7, 3-4	Windshield Wiper and Washer	 2-2
Defogger	 1-8		
Emission Control	 1-3		
Glow Plug	 3-2		
Headlight	 2-6		
Headlight Cleaner	 2-3		
Horn	 2-2		
Ignition	 1-1		
Interior Light	 2-7		
Power Source	 1-1, 3-1		
Radio and Stereo	 2-8		
Rear Air Conditioner	 1-6		







Power Source



Starting

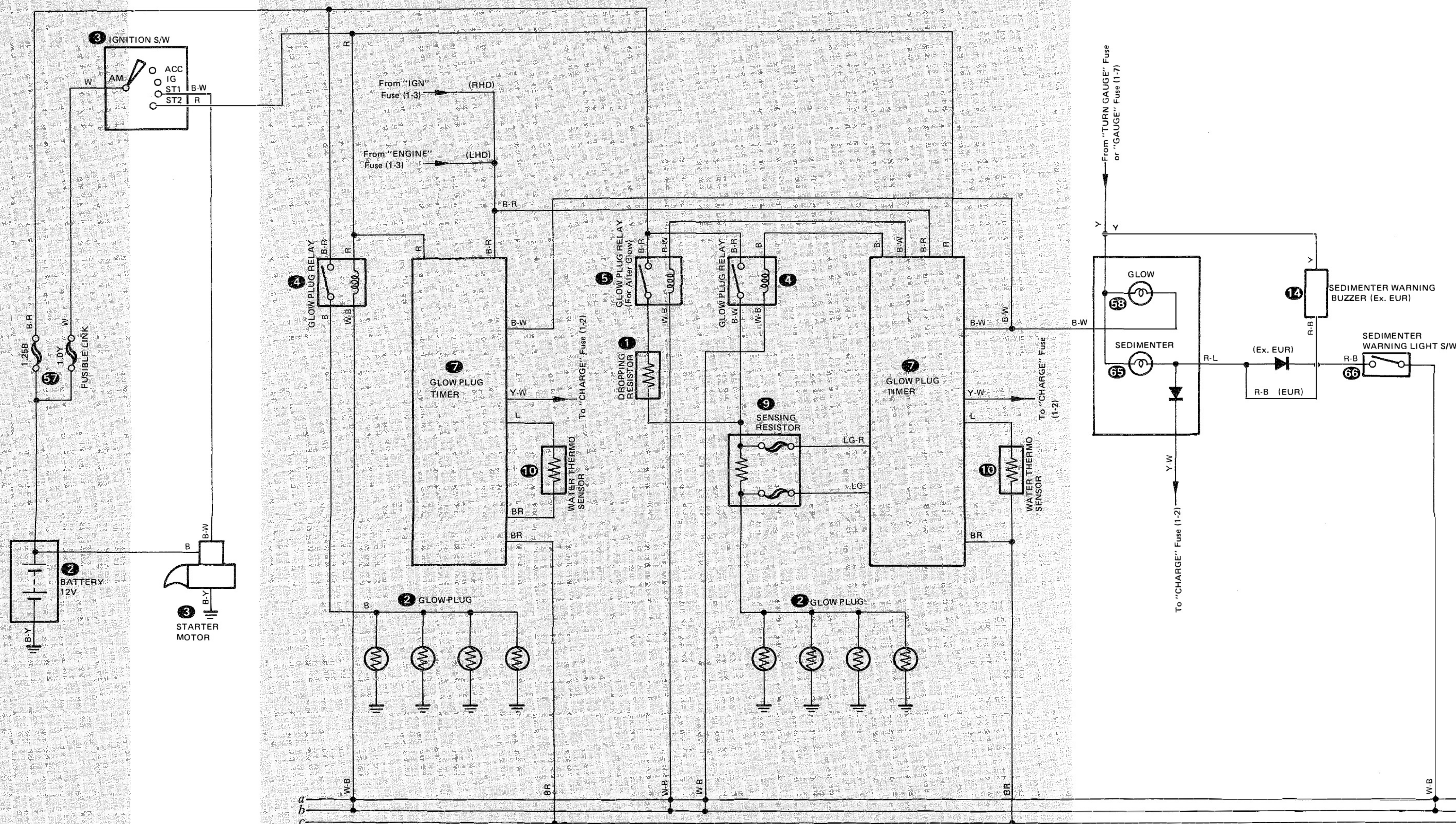


Glow Plug



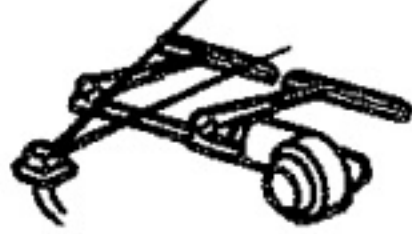
Combination Meter

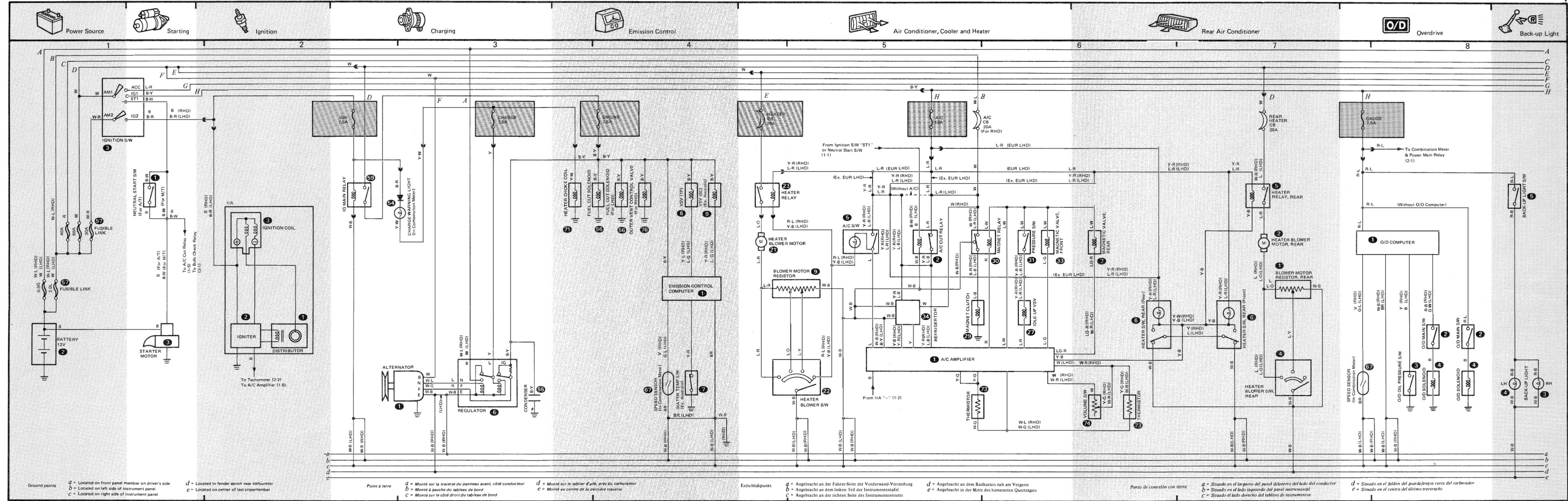
16

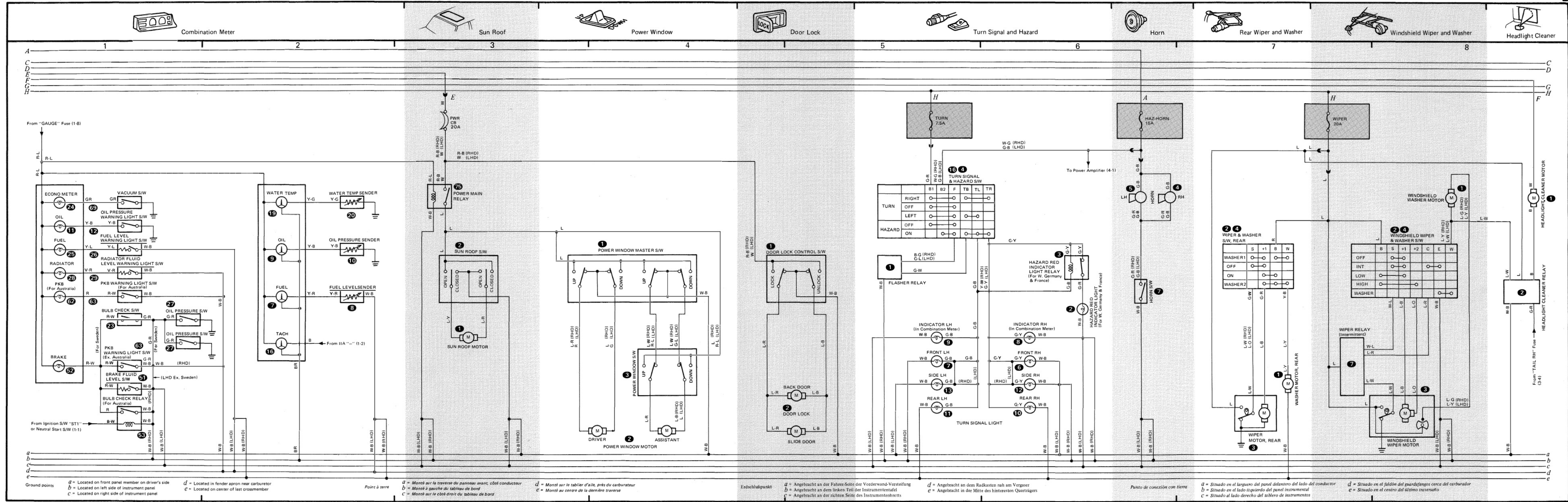


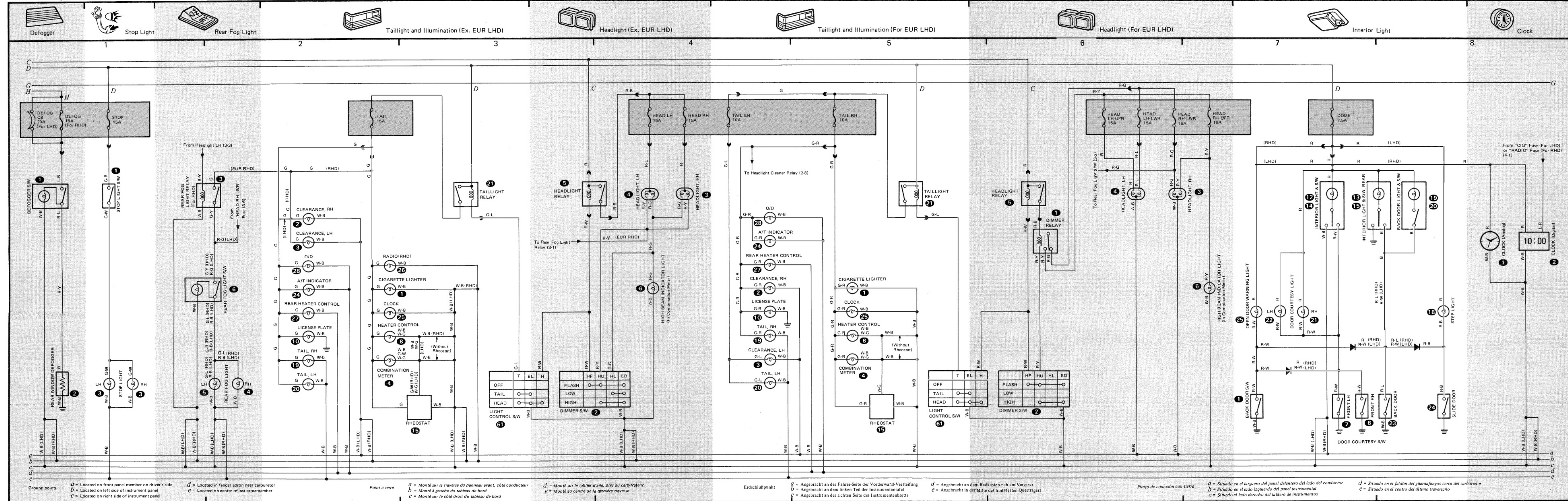
SYSTEM INDEX

MODEL F 1983 Production Vehicles (Page 1 to Page 4)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-5	Rear Air Conditioner	 1-7
Back-up Light	 1-8	Rear Fog Light	 3-1
Charging	 1-3	Rear Wiper and Washer	 2-7
CIG. Lighter	 4-1	Starting	 1-1
Clock	 3-8	Stop Light	 3-1
Combination Meter	 2-1	Sun Roof	 2-3
Defogger	 3-1	Taillight and Illumination	 3-2, 3-4
Door Lock	 2-5	Turn Signal and Hazard	 2-5
Emission Control	 1-4	Windshield Wiper and Washer	 2-8
Headlight	 3-3, 3-6		
Headlight Cleaner	 2-8		
Horn	 2-6		
Ignition	 1-2		
Interior Light	 3-7		
Overdrive	 1-8		
Power Source	 1-1		
Power Window	 2-4		
Radio and Stereo	 4-1		

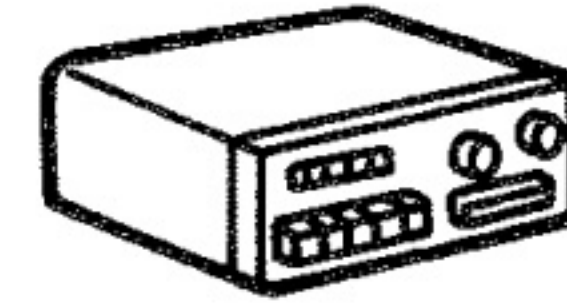




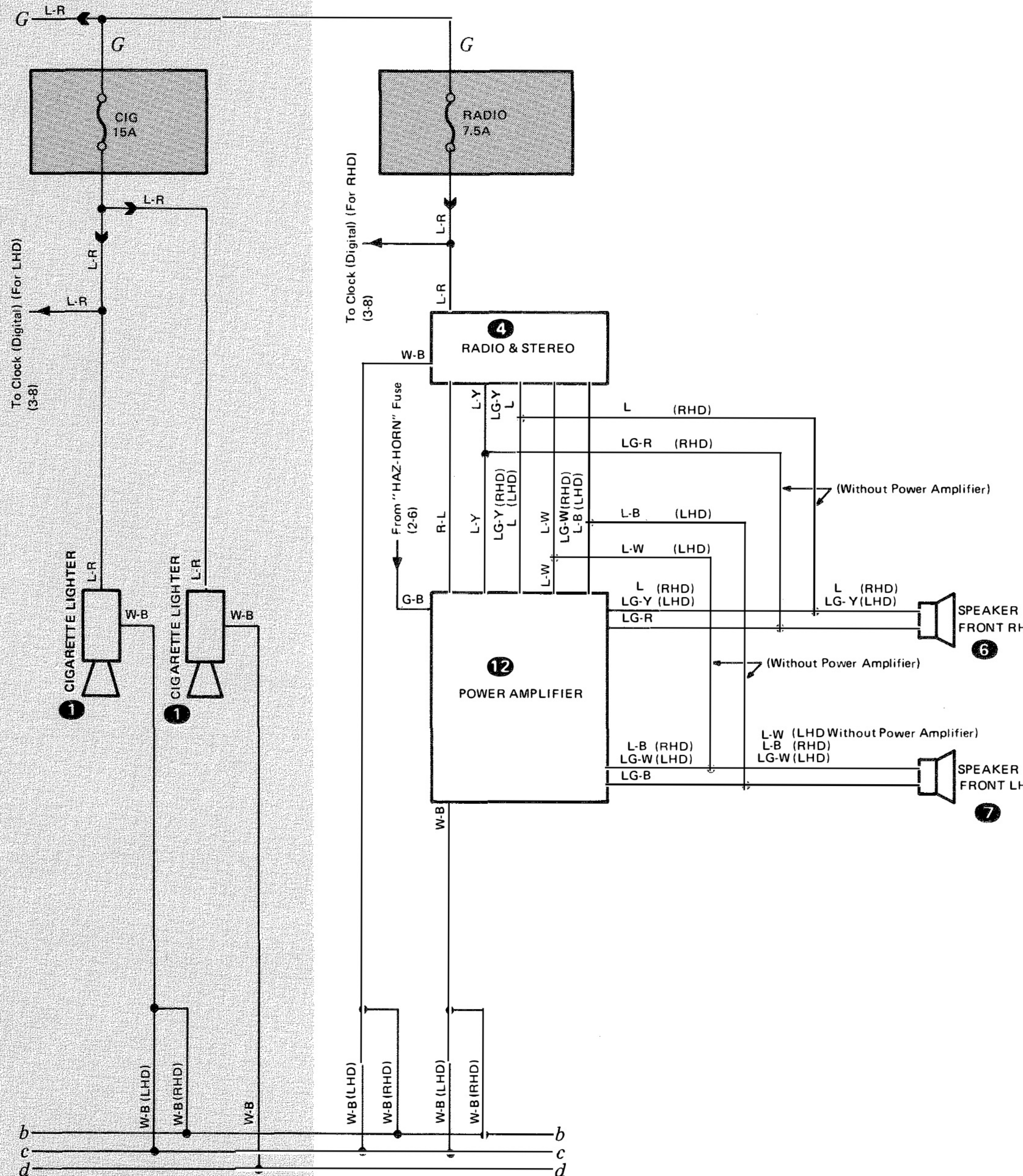




CIG. Lighter



Radio and Stereo



Ground points

- b* = Located on left side of instrument panel
- c* = Located on right side of instrument panel
- d* = Located in fender apron near carburetor

Point à terre

- b* = Monté à gauche du tableau de bord
- c* = Monté sur le côté droit du tableau de bord
- d* = Monté sur le tablier d'aile, près du carburateur

Erdschlußpunkt

- b* = Angebracht an dem linken Teil der Instrumententafel
- c* = Angebracht an der rechten Seite des Instrumentenbretts
- d* = Angebracht an dem Radkasten nah am Vergaser

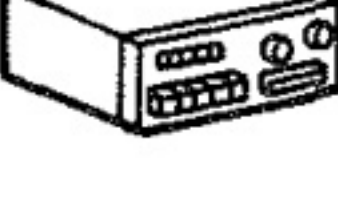
Punto de conexión con tierra

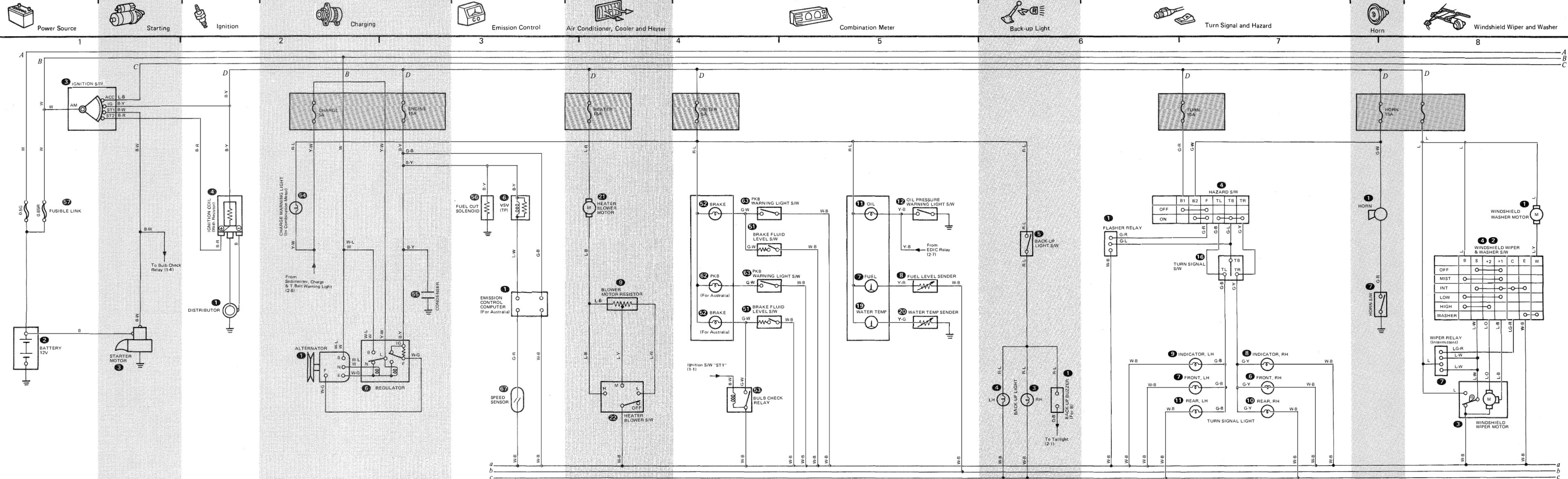
- b* = Situado en el lado izquierdo del panel instrumental
- c* = Situado al lado derecho del tablero de instrumentos
- d* = Situado en el faldón del guardafangos cerca del carburador

SYSTEM INDEX

TOYOACE

1983 Production Vehicles (Page 1 to Page 2)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-4	Taillight and Illumination	 2-2
Back-up Light	 1-6	Turn Signal and Hazard	 1-7
Charging	 1-2	Windshield Wiper and Washer	 1-8
CIG. Lighter	 2-4		
Combination Meter	 1-5, 2-8		
EDIC	 2-7		
Emission Control	 1-3		
Exhaust Brake	 2-7		
Fog Light	 2-1		
Glow Plug	 2-6		
Headlight	 2-3		
Horn	 1-7		
Ignition	 1-2		
Interior Light	 2-4		
Power Source	 1-1, 2-5		
Radio and Stereo	 2-4		
Starting	 1-1, 2-5		
Stop Light	 2-1		

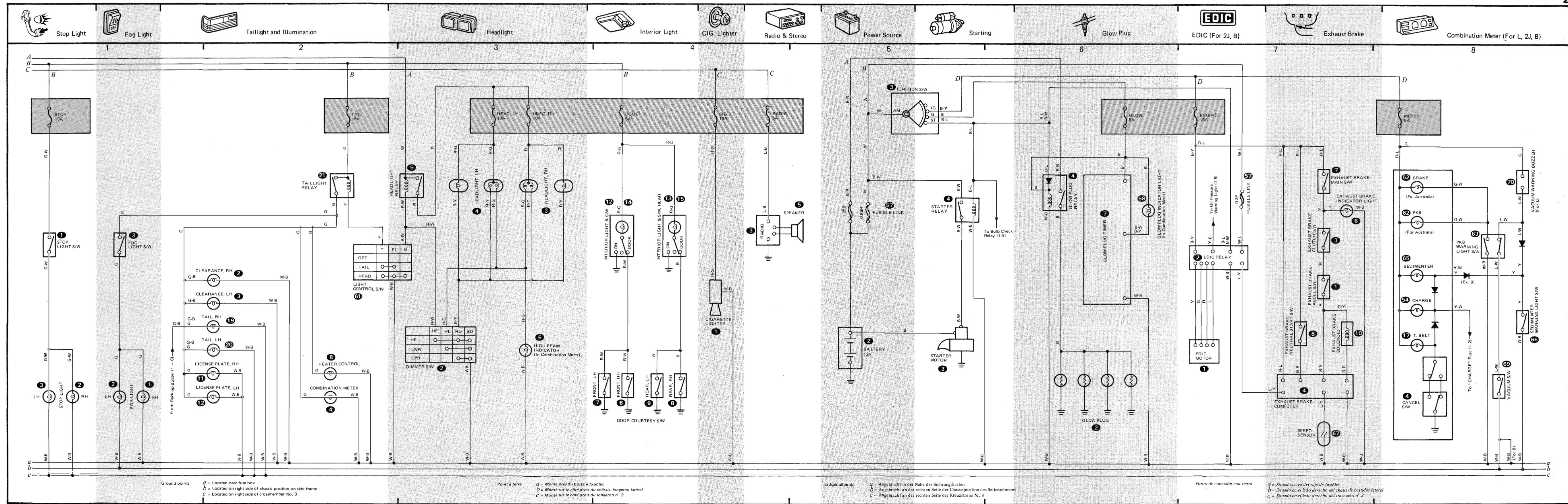


Ground points
 a = Located near fuse box
 b = Located on right side of chassis position on side frame
 c = Located on right side of crossmember No. 3

Point à terre
 a = Monté près du boîte à fusibles
 b = Monté sur le côté droit du châssis, longeron latéral
 c = Monté sur le côté droit du longeron n° 3

Erdschlußpunkt
 a = Angebracht in der Nähe des Sicherungskasten
 b = Angebracht an der rechten Seite der Chassisposition des Seitenrahmens
 c = Angebracht an der rechten Seite der Kreuzstrebe Nr. 3

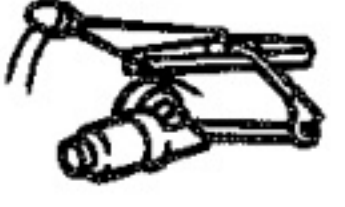
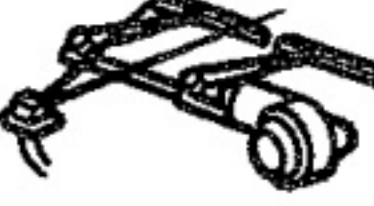
Punto de conexión con tierra
 a = Situado cerca del caja de fusibles
 b = Situado en el lado derecho del chasis de bastidor lateral
 c = Situado en el lado derecho del travesaño n° 3



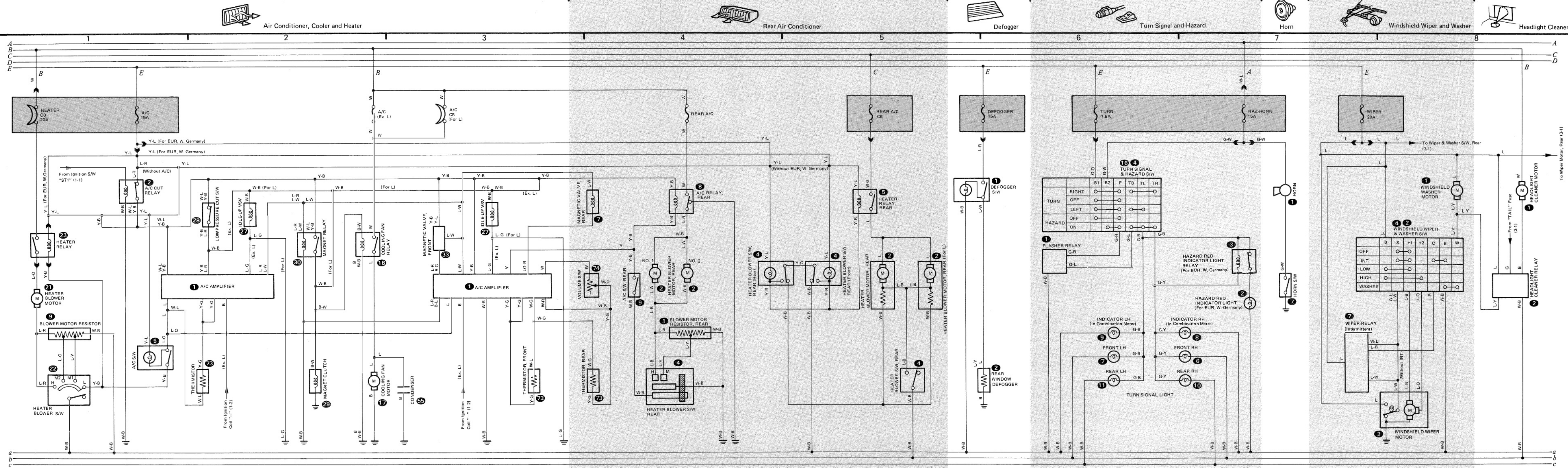
SYSTEM INDEX

HIACE, Van Type

1983 Production Vehicles (Page 1 to Page 4)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 2-3	Rear Fog Light	 3-4
Back-up Light	 1-8	Rear Wiper and Washer	 3-1
Charging	 1-3	Starting	 1-1, 4-1
CIG. Lighter	 3-8	Stop Light	 1-8
Clock	 3-7	Taillight and Illumination	 3-2
Combination Meter	 1-6, 4-3	Turn Signal and Hazard	 2-6
Defogger	 2-5	Windshield Wiper and Washer	 2-8
Emission Control	 1-4		
Glow Plug	 4-2		
Headlight	 3-3, 3-5		
Headlight Cleaner	 2-8		
Horn	 2-7		
Ignition	 1-2		
Interior Light	 3-6		
Overdrive	 1-5		
Power Source	 1-1, 4-1		
Radio and Stereo	 3-8		
Rear Air Conditioner	 2-5		





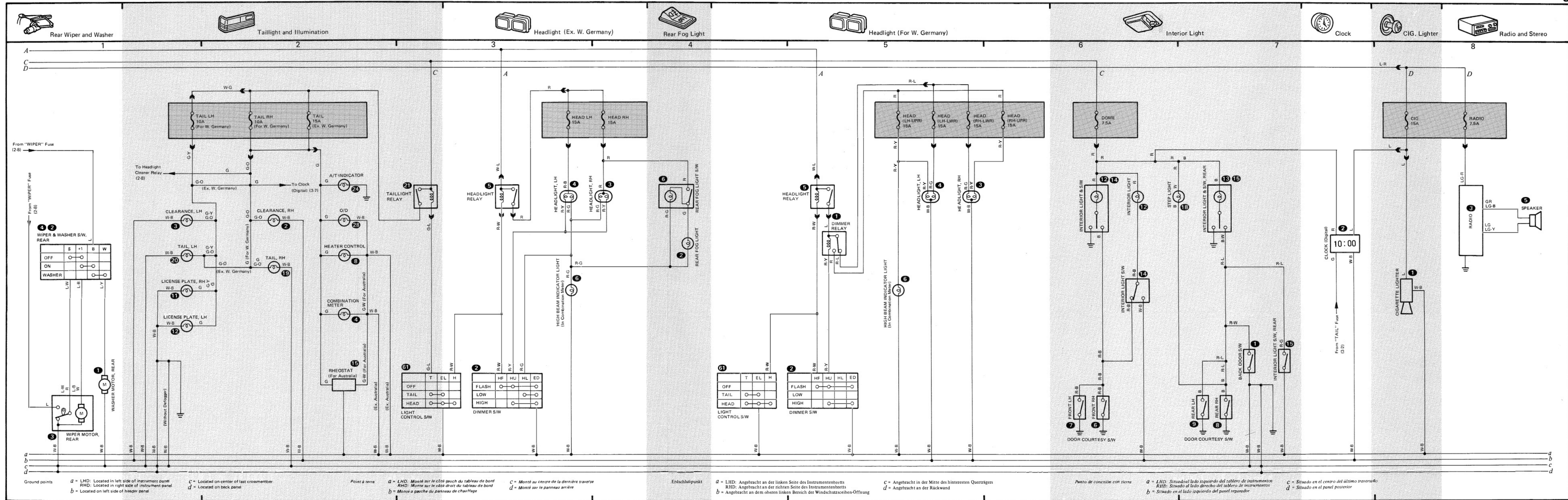
Ground points
a = LHD: Located in left side of instrument panel
b = Located on left side of header panel
c = Located on center of last crossmember

Point à terre
a = LHD: Monté sur le côté gauche du tableau de bord
b = Monté à gauche du panneau de chauffage
c = Monté au centre de la dernière traverse

Erdschlußpunkt
a = LHD: Angebracht an der linken Seite des Instrumentenbretts
b = Angebracht an der rechten Seite des Instrumentenbretts
c = Angebracht in der Mitte des hintersten Querträgers

Punto de conexión con tierra
a = LHD: Situado al lado izquierdo del tablero de instrumentos
b = Situado al lado derecho del tablero de instrumentos
c = Situado en el centro del último travesaño

Punto de conexión con tierra
a = LHD: Situado al lado izquierdo del tablero de instrumentos
b = Situado al lado derecho del tablero de instrumentos
c = Situado en el centro del último travesaño

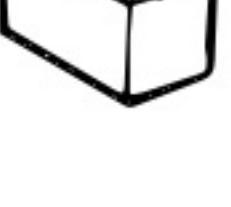


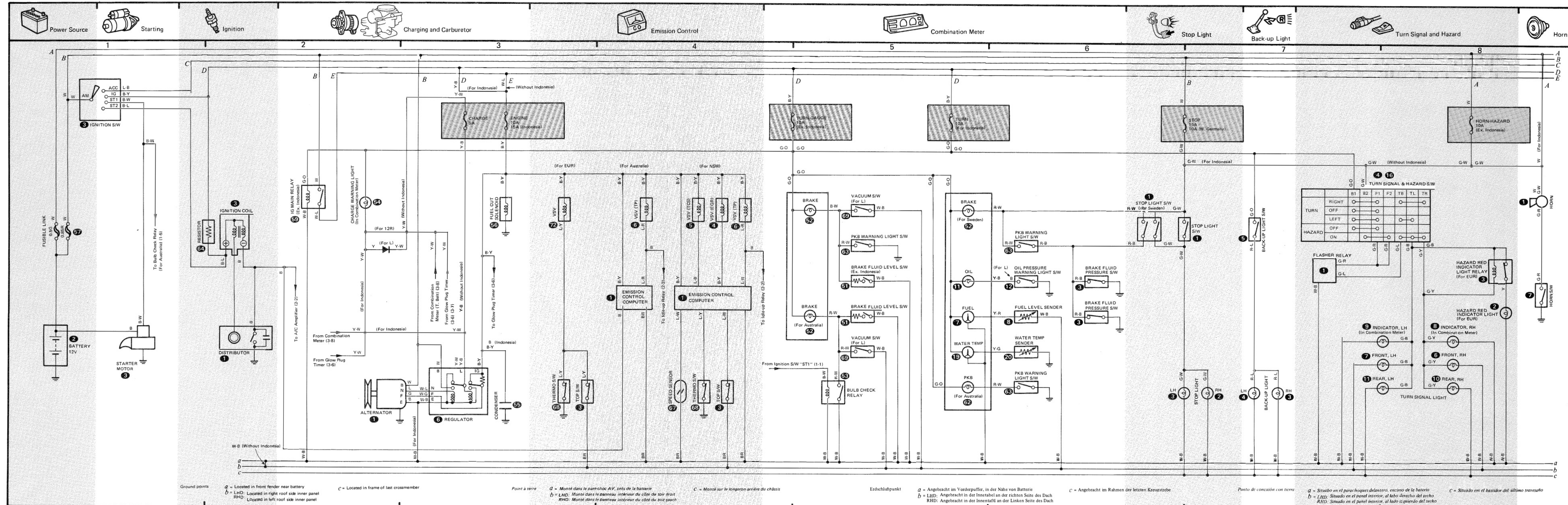


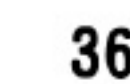
SYSTEM INDEX

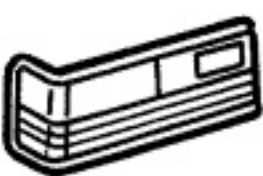
HIACE, Truck Type

1983 Production Vehicles (Page 1 to Page 3)

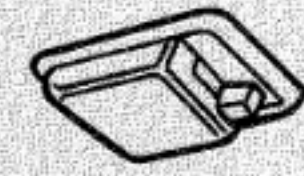
SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater 	2-1	Taillight and Illumination 	2-5, 3-1
Back-up Light 	1-7	Turn Signal and Hazard 	1-8
Carburetor 	1-3	Windshield Wiper and Washer 	2-4
Charging 	1-3		
CIG. Lighter 	3-3		
Combination Meter 	1-5, 3-8		
Emission Control 	1-4		
Glow Plug 	3-6		
Headlight 	2-6, 2-8		
Headlight Cleaner 	2-5		
Horn 	1-8		
Ignition 	1-2		
Interior Light 	3-2		
Power Source 	1-1, 3-4		
Radio and Stereo 	3-4		
Rear Fog Light 	2-7		
Starting 	1-1, 3-5		
Stop Light 	1-7		







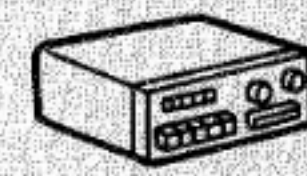
Taillight and Illumination
(For W. Germany)



Interior Light



CIG. Lighter



Radio and Stereo



Power Source



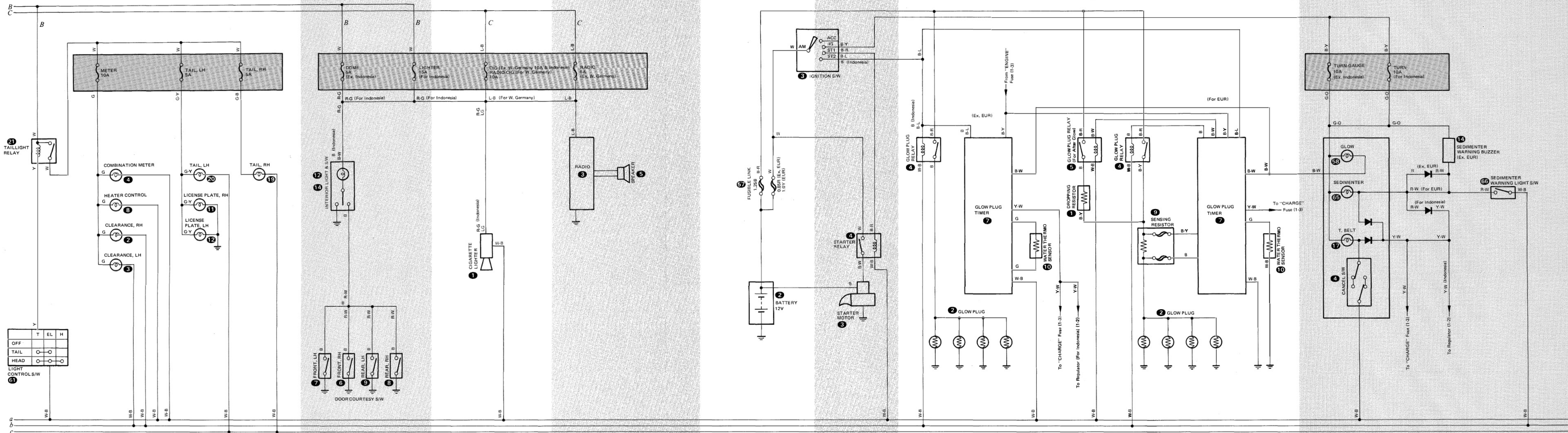
Starting



Glow Plug



Combination Meter (For L)



Ground points a = Located in front fender near battery b = LHD: Located in right roof side inner panel RHD: Located in left roof side inner panel c = Located in frame of last crossmember

Point à terre a = Monté dans le pare-choc AV, près de la batterie b = LHD: Monté dans le panneau intérieur du côté du toit droit RHD: Monté dans le panneau intérieur du côté du toit gauche c = Monté sur la longeron arrière du châssis

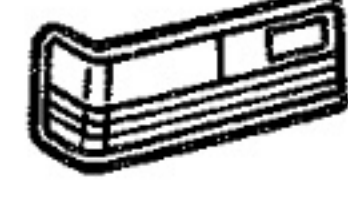
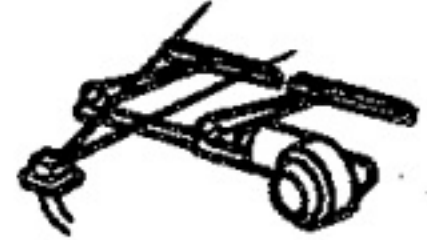
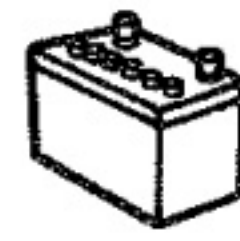
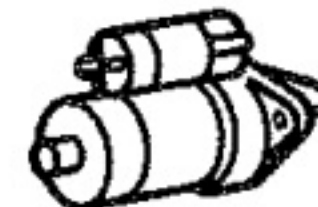
Endschlußpunkt a = Angebracht im Vorderpuffer, in der Nähe von Batterie b = LHD: Angebracht in der Innetafel an der rechten Seite des Dach RHD: Angebracht in der Innetafel an der linken Seite des Dach c = Angebracht im Rahmen der letzten Kreuzstrebe

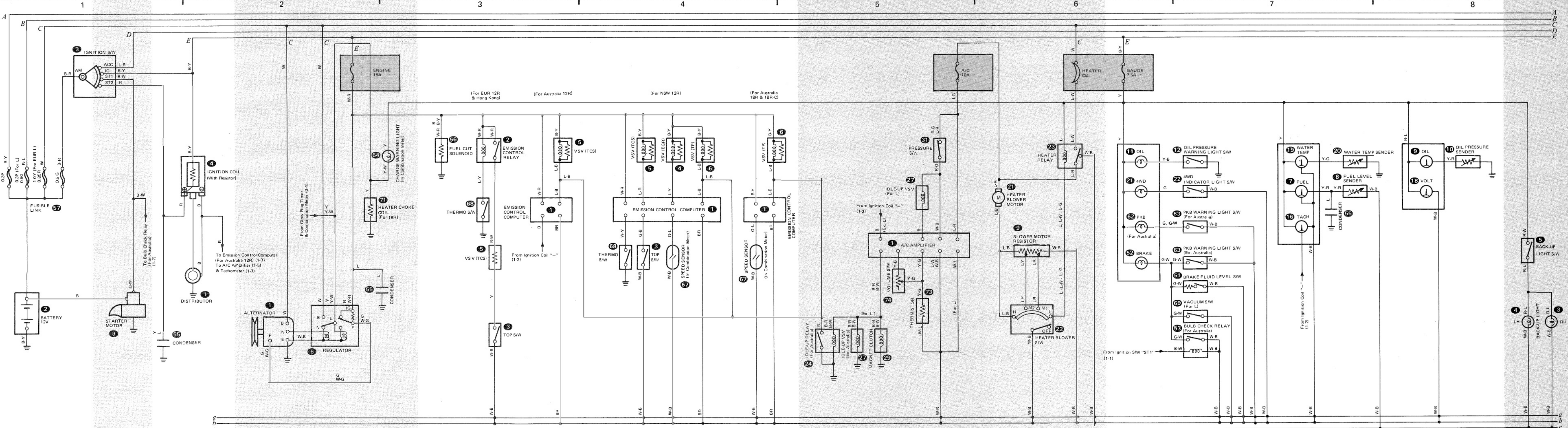
Punto de conexión con tierra a = Situado en el parachoques delantero, encima de la batería b = LHD: Situado en el panel interior, al lado derecho del techo RHD: Situado en el panel interior, al lado izquierdo del techo c = Situado en el bastidor del último travesaño

SYSTEM INDEX

HILUX

1983 Production Vehicles (Page 1 to Page 3)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-5	Stop Light	 2-3
Back-up Light	 1-8	Taillight and Illumination	 2-5
Carburetor	 1-2	Turn Signal and Hazard	 2-1
Charging	 1-2	Windshield Wiper and Washer	 2-3
CIG. Lighter	 2-8		
Clock	 2-8		
Combination Meter	 1-7, 3-4		
Emission Control	 1-4		
Glow Plug	 3-3		
Headlight	 2-6		
Headlight Cleaner	 2-4		
Horn	 2-2		
Ignition	 1-2		
Interior Light	 2-7		
Power Source	 1-1, 3-1		
Radio and Stereo	 2-8		
Rear Fog Light	 2-7		
Starting	 1-1, 3-1		



Ground points

a = Located near regulator
b = 12R, 18R, 18R-C: Located instrument panel on left side bracket
L: Located instrument panel on right side bracket
C = Located in frame of last crossmember

Point à terre

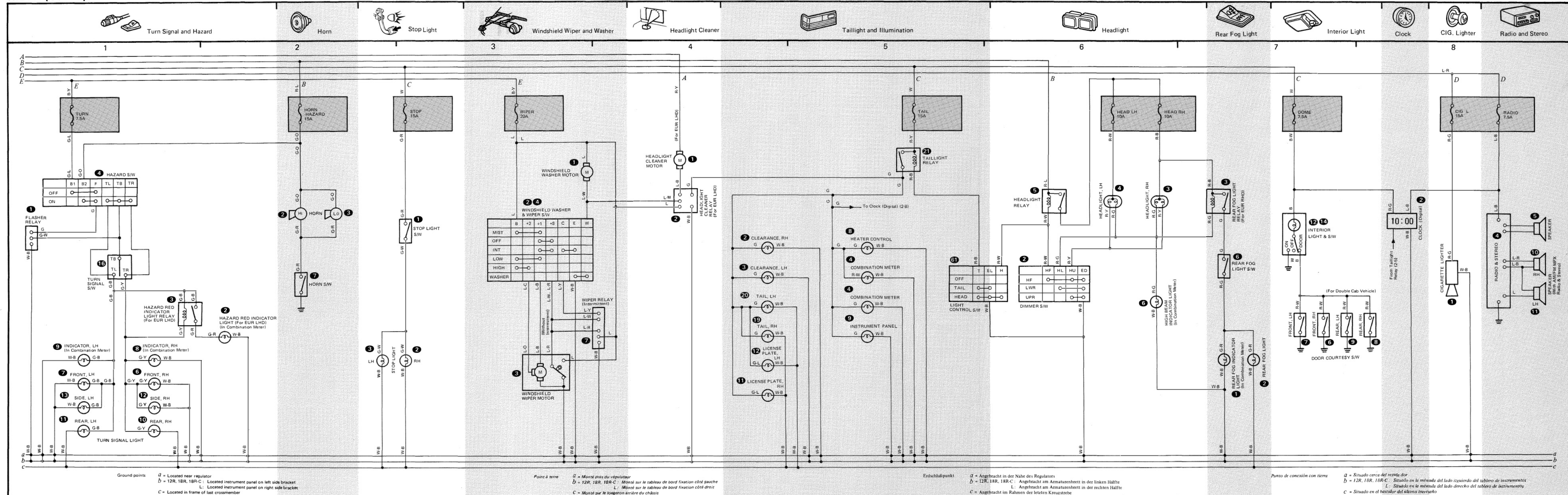
a = Monté près du régulateur
b = 12R, 18R, 18R-C: Monté sur le tableau de bord fixation côté gauche
L: Monté sur le tableau de bord fixation côté droit
C = Monté sur le longeron arrière du châssis

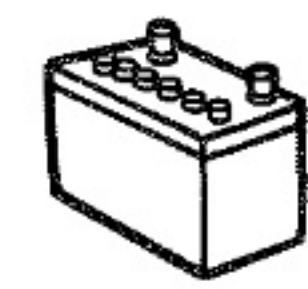
Erdschlußpunkt

a = Angebracht in der Nähe des Regulators
b = 12R, 18R, 18R-C: Angebracht am Armaturenbrett in der linken Hälfte
L: Angebracht am Armaturenbrett in der rechten Hälfte
C = Angebracht im Rahmen der letzten Kreuzstrebe

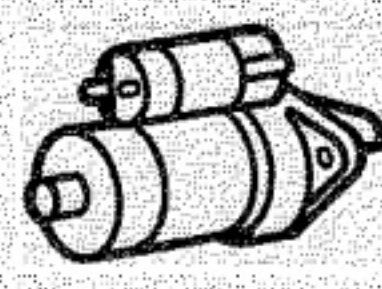
Punto de conexión con tierra

a = Situado cerca del regulador
b = 12R, 18R, 18R-C: Situado en la ménsula del lado izquierdo del tablero de instrumentos
L: Situado en la ménsula del lado derecho del tablero de instrumentos
C = Situado en el bastidor del último travesaño





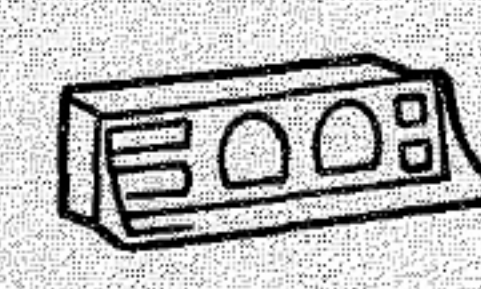
Power Source



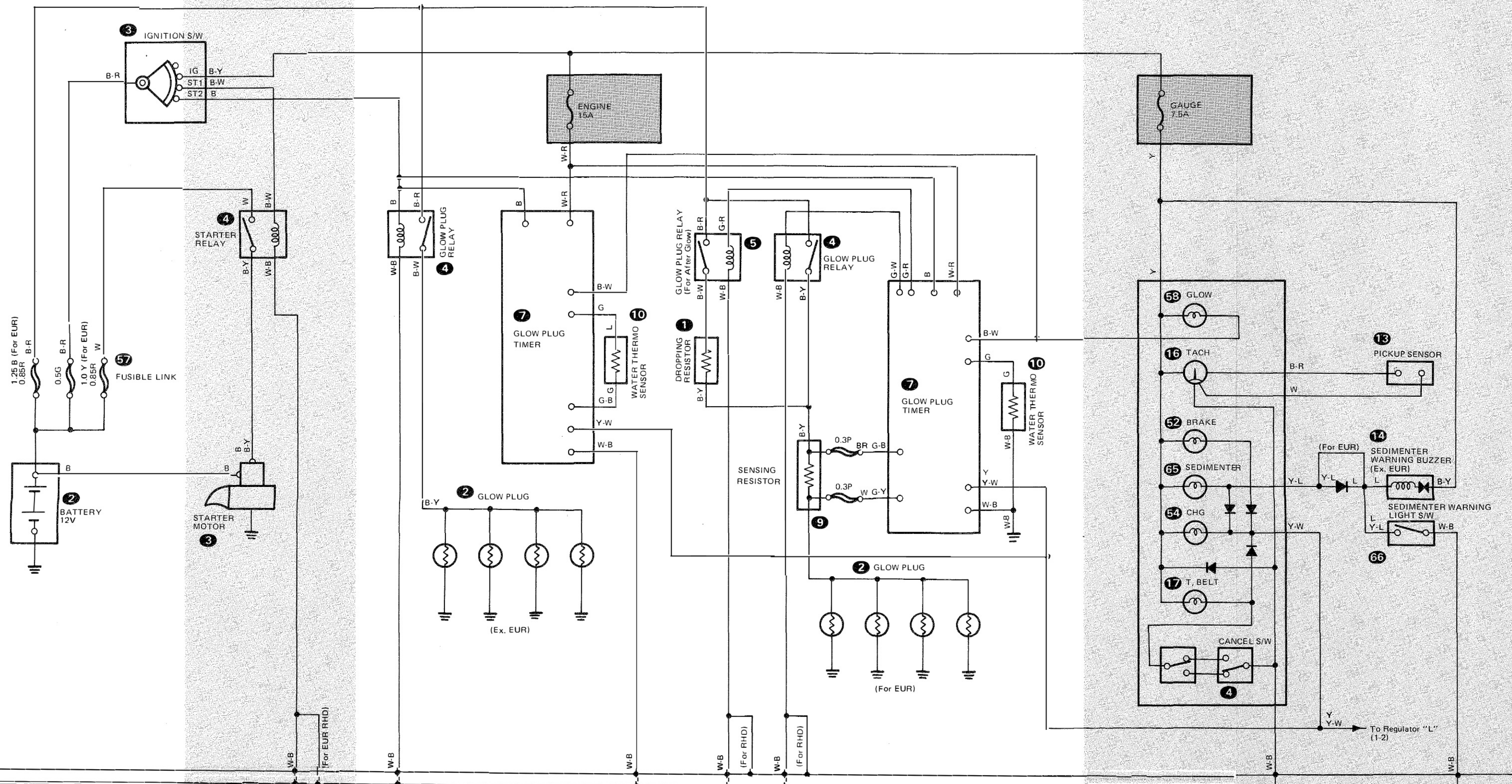
Starting



Glow Plug



Combination Meter (For L)



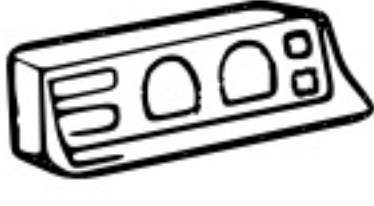
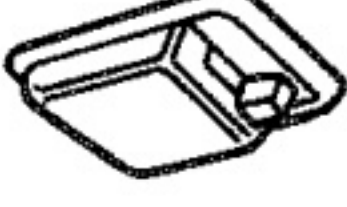
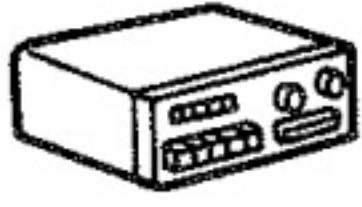
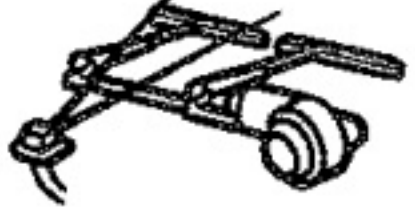
Ground points
 a = Located near regulator
 b = 12R, 18R, 18R-C: Located instrument panel on left side bracket
 L: Located instrument panel on right side bracket

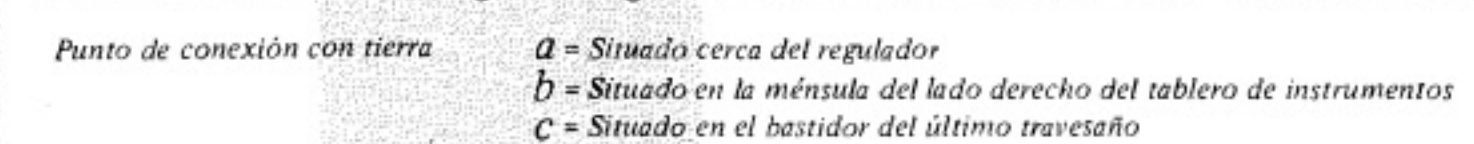
Point à terre
 a = Monté près du régulateur
 b = 12R, 18R, 18R-C: Monté sur le tableau de bord fixation côté gauche
 L: Monté sur le tableau de bord fixation côté droit

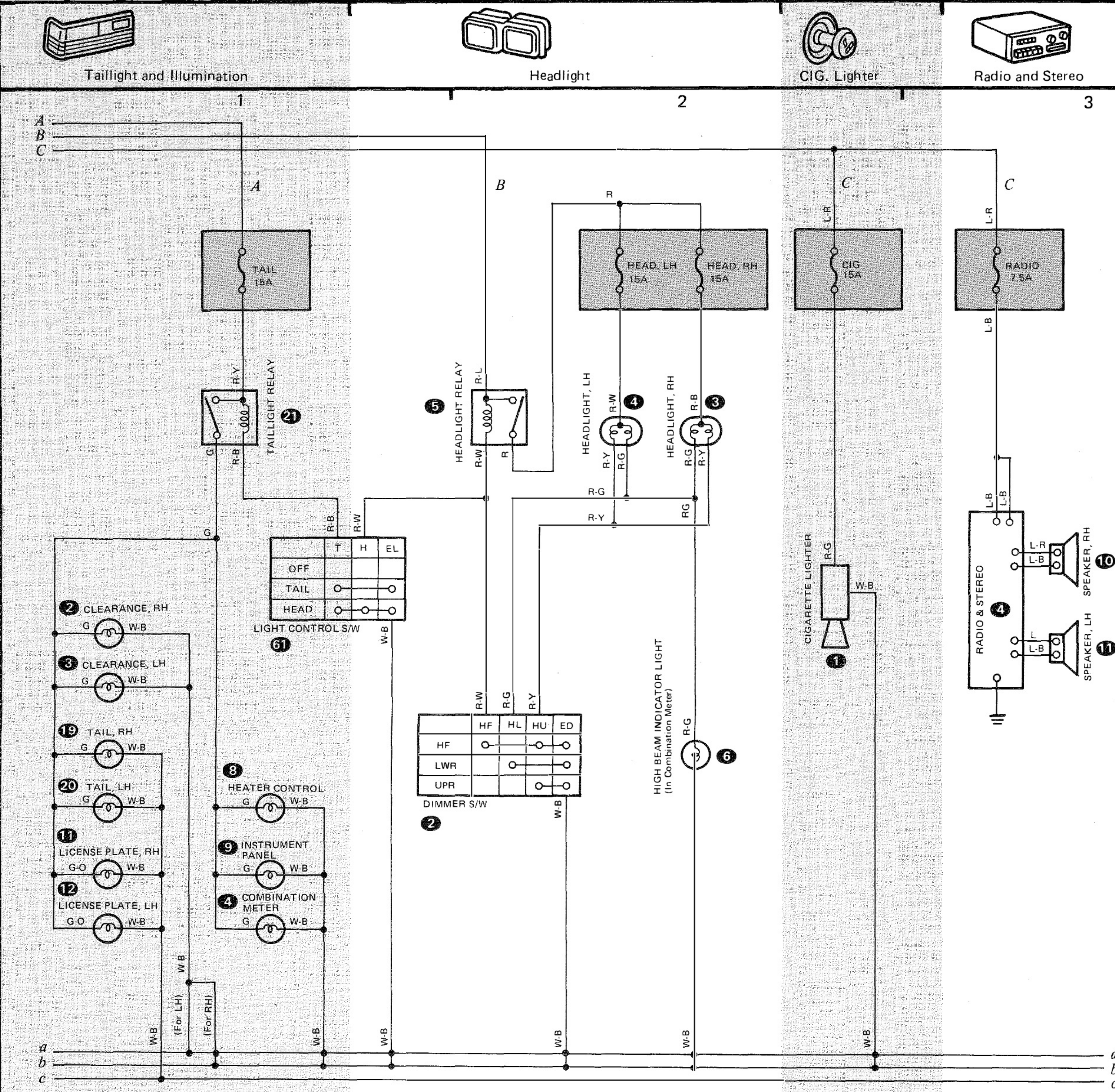
Erdschlußpunkt
 a = Angebracht in der Nähe des Regulators
 b = 12R, 18R, 18R-C: Angebracht am Armaturenbrett in der linken Hälfte
 L: Angebracht am Armaturenbrett in der rechten Hälfte

Punto de conexión con tierra
 a = Situado cerca del regulador
 b = 12R, 18R, 18R-C: Situado en la ménsula del lado izquierdo del tablero de instrumentos
 L: Situado en la ménsula del lado derecho del tablero de instrumentos

SYSTEM INDEX

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-3		
Back-up Light	 1-5		
Charging	 1-2		
CIG. Lighter	 2-2		
Clock	 1-8		
Combination Meter	 1-5		
Emission Control	 1-2		
Headlight	 2-2		
Horn	 1-6		
Interior Light	 1-8		
Ignition	 1-1		
Power Source	 1-1		
Radio and Stereo	 2-3		
Starting	 1-1		
Stop Light	 1-7		
Taillight and Illumination	 2-1		
Turn Signal and Hazard	 1-6		
Windshield Wiper and Washer	 1-7		





Ground points
a = Located near regulator
b = Located instrument panel on right side bracket
c = Located in frame of last crossmember

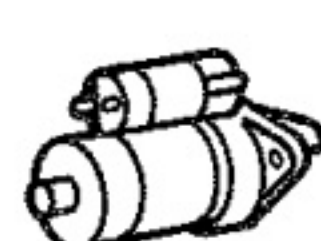
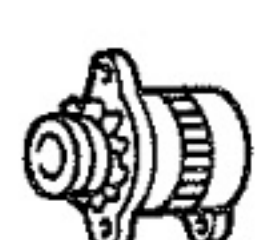
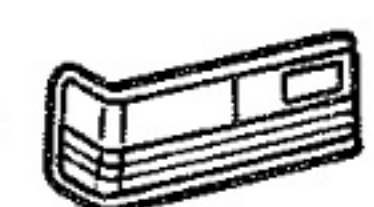
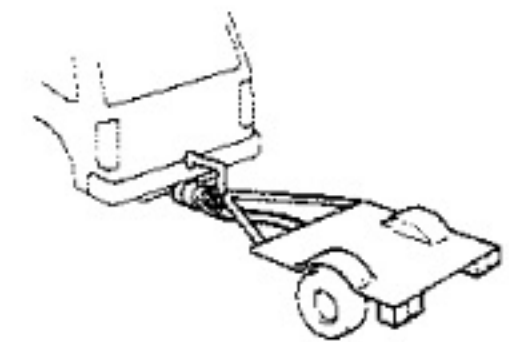
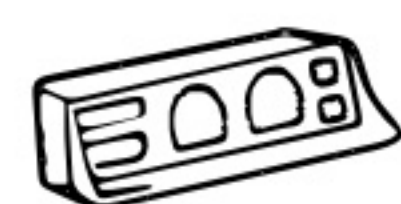
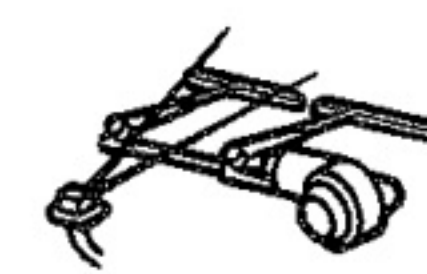
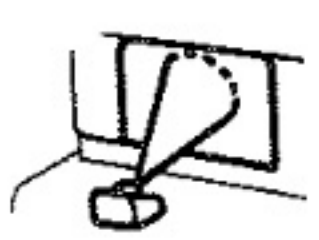
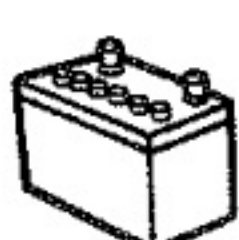
Point a terre
a = Monté près du régulateur
b = Monté sur le tableau de bord fixation côté droit
c = Monté sur le longeron arrière du châssis

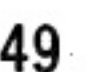
Erdschlußpunkt
a = Angebracht in der Nähe des Regulators
b = Angebracht am Armaturenbrett in der rechten Hälfte
c = Angebracht im Rahmen der letzten Kreuzstrebe

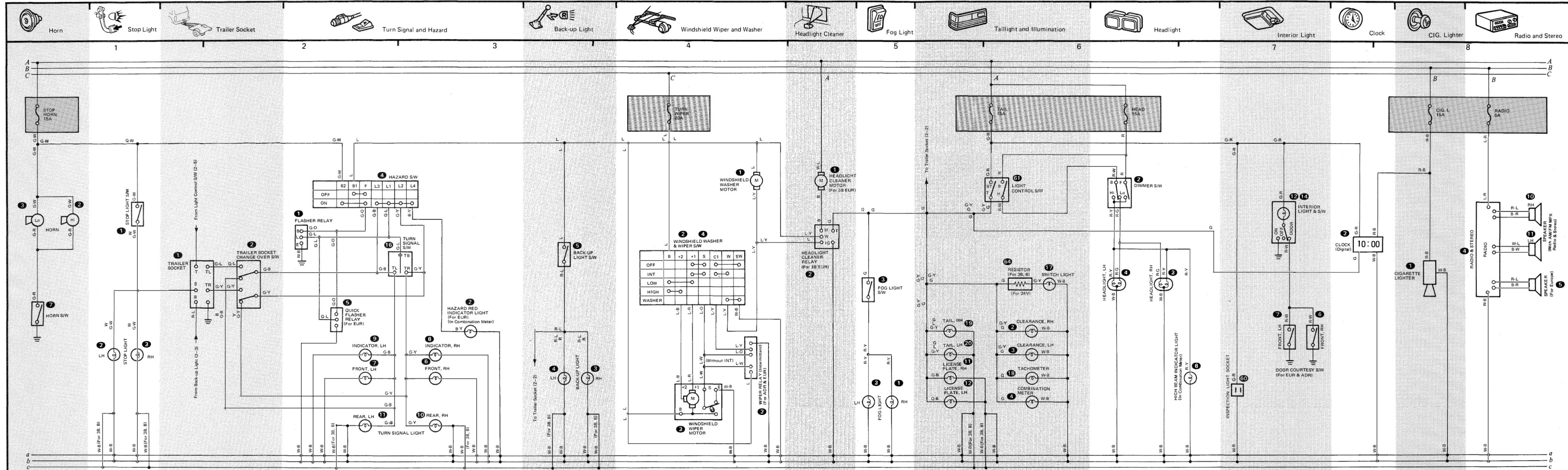
Punto de conexión con tierra
a = Situado cerca del regulador
b = Situado en la ménsula del lado derecho del tablero de instrumentos
c = Situado en el bastidor del último travesaño

SYSTEM INDEX

LAND CRUISER FJ, BJ, HJ40 Series 1983 Production Vehicles (Page 1 to Page 3)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater 	1-5	Starting 	1-1, 3-1
Back-up Light 	2-3	Stop Light 	2-1
Charging 	1-3	Taillight and Illumination 	2-6
CIG. Lighter 	2-8	Trailer Socket 	2-2
Clock 	2-7	Turn Signal and Hazard 	2-3
Combination Meter 	1-8, 3-4	Winch 	1-6
EDIC 	3-5	Windshield Wiper and Washer 	2-4
Emission Control 	1-3		
Fog Light 	2-5		
Glow Plug 	3-3		
Headlight 	2-6		
Headlight Cleaner 	2-5		
Horn 	2-1		
Ignition 	1-2		
Interior Light 	2-7		
Power Source 	1-1, 3-1		
Radio and Stereo 	2-8		
Rear Air Conditioner 	1-4		



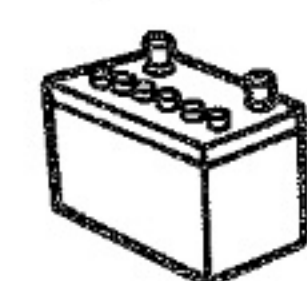


Ground points
 a = Located on right side of dash panel
 b = Located on left side of dash panel
 c = Located on right side of chassis position on side frame

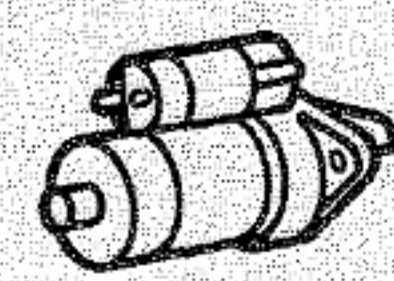
Point à terre
 a = Monté sur le côté droit du tableau de bord
 b = Monté sur le côté gauche du tableau de bord
 c = Monté sur le côté droit du châssis, longeron latéral

Erdschlußpunkt
 a = Angebracht an der rechten Seite des Armaturenbretts
 b = Angebracht an der linken Seite des Armaturenbretts
 c = Angebracht an der rechten Seite der Chassisposition des Seitenrahmens

Punto de conexión con tierra
 a = Situado en el lado derecho del tablero de instrumentos
 b = Situado en el lado izquierdo del tablero de instrumentos
 c = Situado en el lado derecho del chasis de bastidor lateral



Power Source



Starting



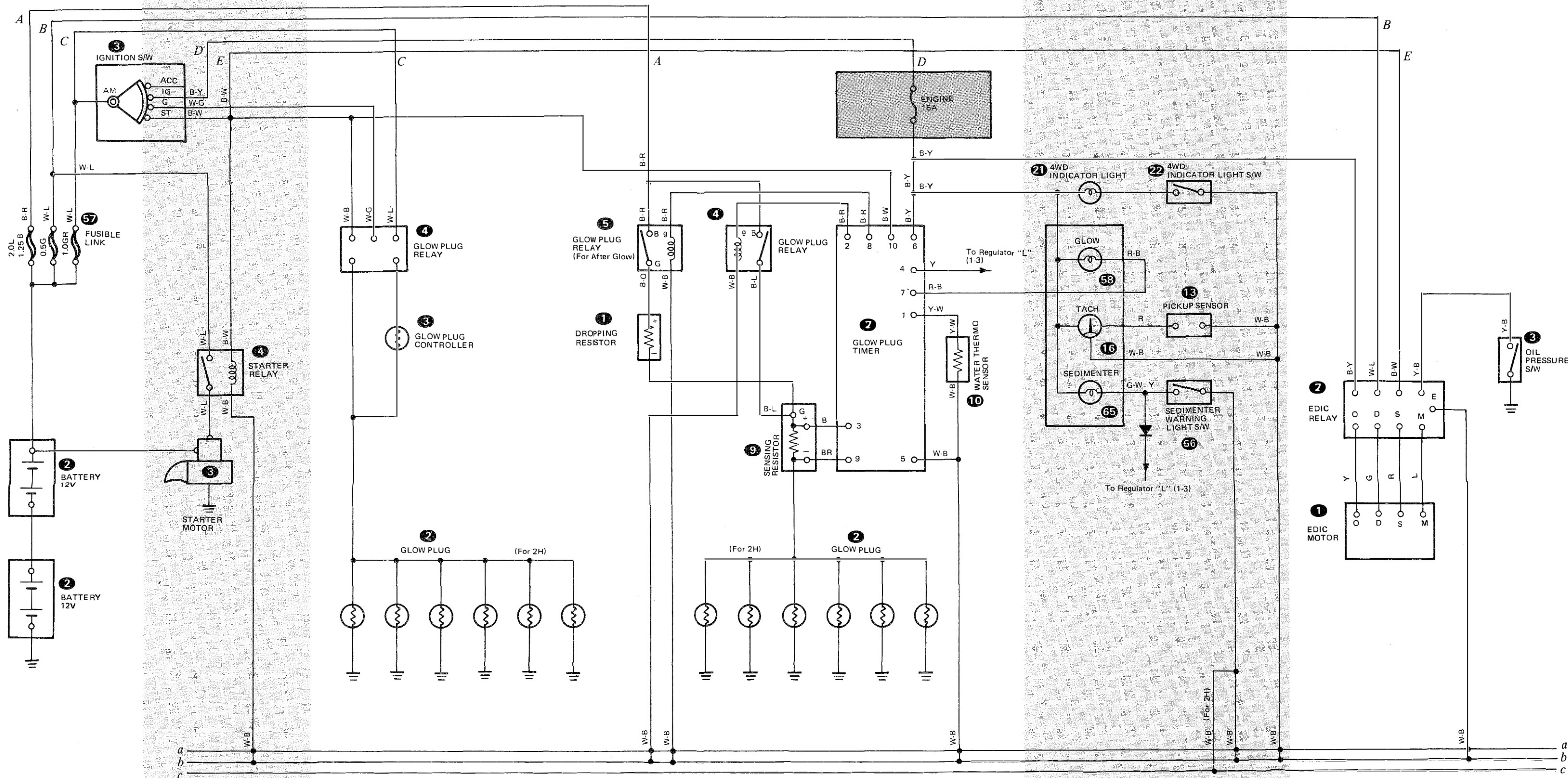
Glow Plug



Combination Meter
(For 3B, B, 2H)



EDIC



Ground points
a = Located on right side of dash panel
b = Located on left side of dash panel
c = Located on right side of chassis position on side frame

Point à terre
a = Monté sur le côté droit du tableau de bord
b = Monté sur le côté gauche du tableau de bord
c = Monté sur le côté droit du châssis, longeron latéral

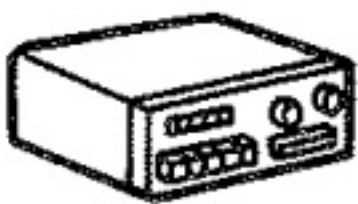
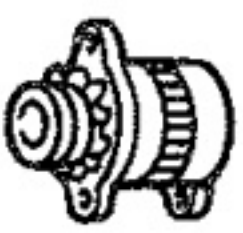
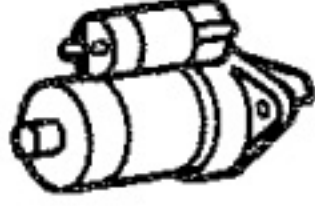
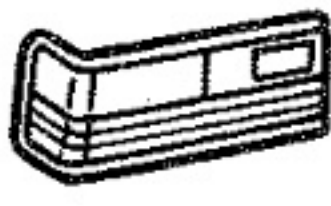
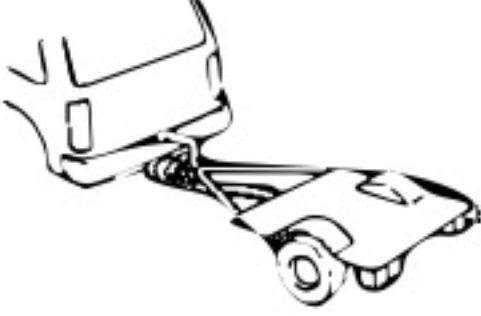
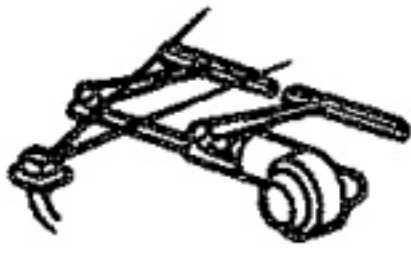
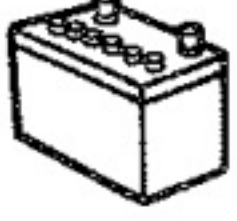
Erdschlußpunkt
a = Angebracht an der rechten Seite des Armaturenbretts
b = Angebracht an der linken Seite des Armaturenbretts
c = Angebracht an der rechten Seite der Chassisposition des Seitenrahmens

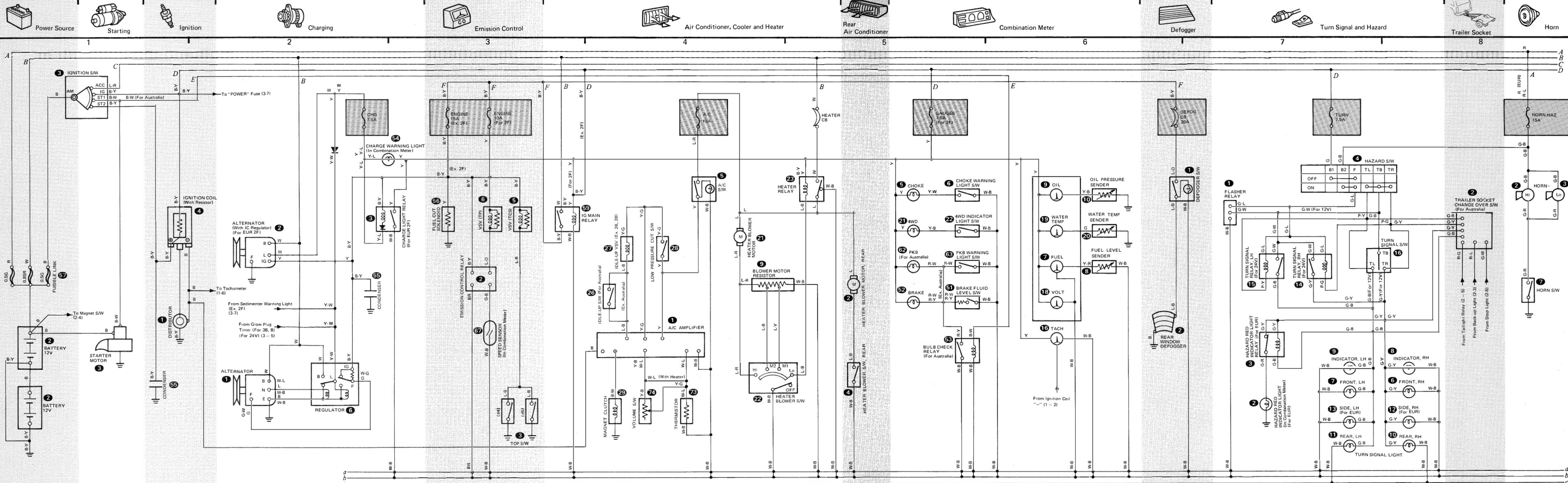
Punto de conexión con tierra
a = Situado en el lado derecho del tablero de instrumentos
b = Situado en el lado izquierdo del tablero de instrumentos
c = Situado en el lado derecho del chasis de bastidor lateral

SYSTEM INDEX

LAND CRUISER FJ, BJ, HJ 60 Series

1983 Production Vehicles (Page 1 to Page 3)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-4	Radio and Stereo	 3-3
Antenna Motor	 3-2	Rear Air Conditioner	 1-5
Back-up Light	 2-3	Rear Fog Light	 2-8
Charging	 1-2	Rear Wiper and Washer	 2-2
CIG. Lighter	 3-2	Starting	 1-1, 3-4
Clock	 3-2	Stop Light	 2-8
Combination Meter	 1-6, 3-7	Sun Roof	 3-8
Defogger	 1-6	Taillight and Illumination	 2-5
Door Lock	 3-8	Trailer Socket	 1-8
EDIC	 3-6	Turn Signal and Hazard	 1-7
Emission Control	 1-3	Winch	 1-4
Glow Plug	 3-5	Windshield Wiper and Washer	 2-1, 2-3
Headlight	 2-6, 2-7		
Headlight Cleaner	 2-1		
Horn	 1-8		
Ignition	 1-1		
Interior Light	 3-1		
Power Source	 1-1, 3-3		



54

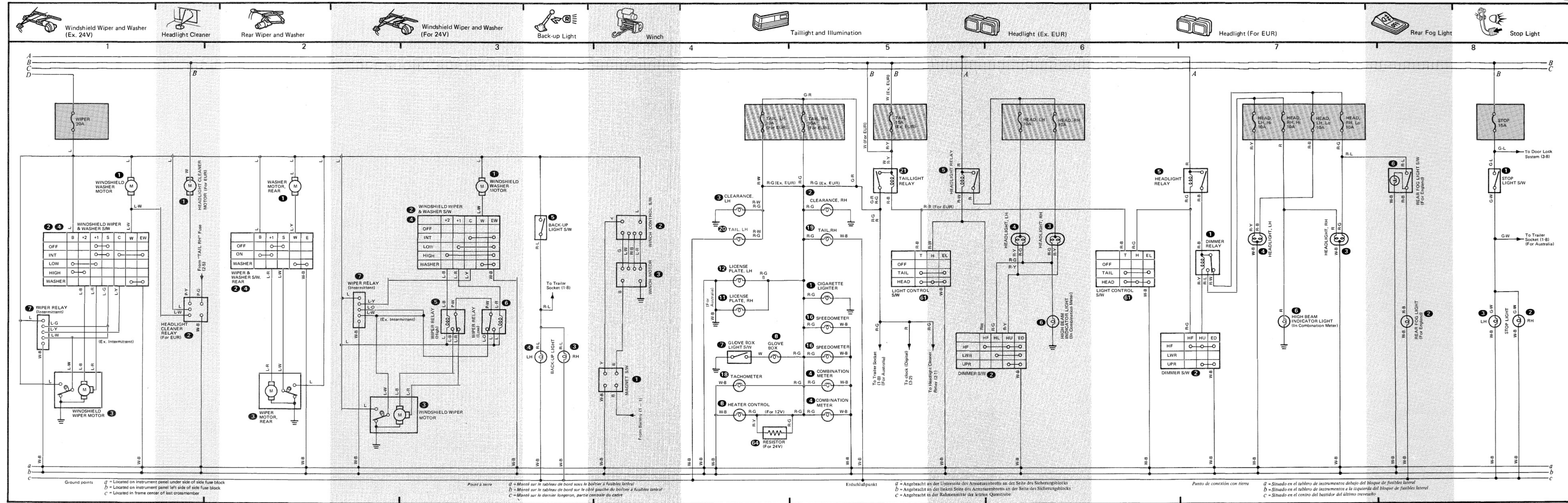
Ground points
 a = Located on instrument panel under side of side fuse block
 b = Located on instrument panel left side of side fuse block
 c = Located in frame center of last crossmember

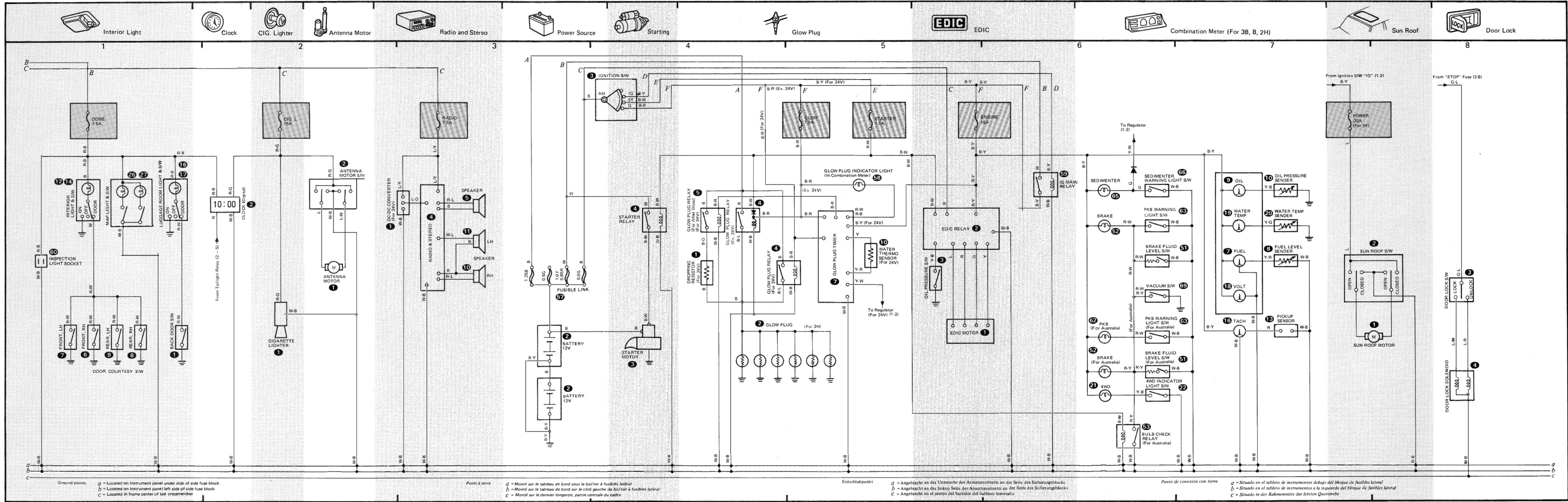
Point à terre
 a = Monté sur le tableau de bord sous le boîtier à fusibles latéral
 b = Monté sur le tableau de bord sur le côté gauche du boîtier à fusibles latéral
 c = Monté sur le dernier longeron, partie centrale du cadre

Erdschlußpunkt
 a = Angebracht an der Unterseite des Armaturenbretts an der Seite des Sicherungsblocks
 b = Angebracht an der linken Seite des Armaturenbretts an der Seite des Sicherungsblocks
 c = Angebracht in der Rahmenmitte der letzten Querstrebe

Punto de conexión con tierra

a = Situado en el tablero de instrumentos debajo del bloque de fusibles lateral
 b = Situado en el tablero de instrumentos a la izquierda del bloque de fusibles lateral
 c = Situado en el centro del bastidor del último travesaño

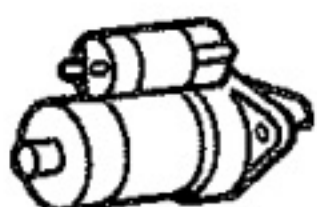
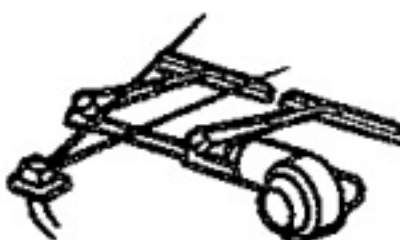
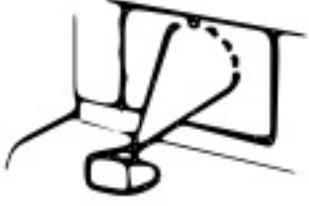
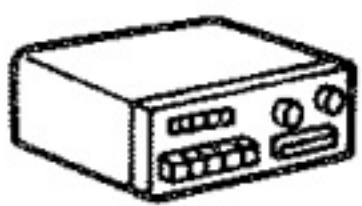


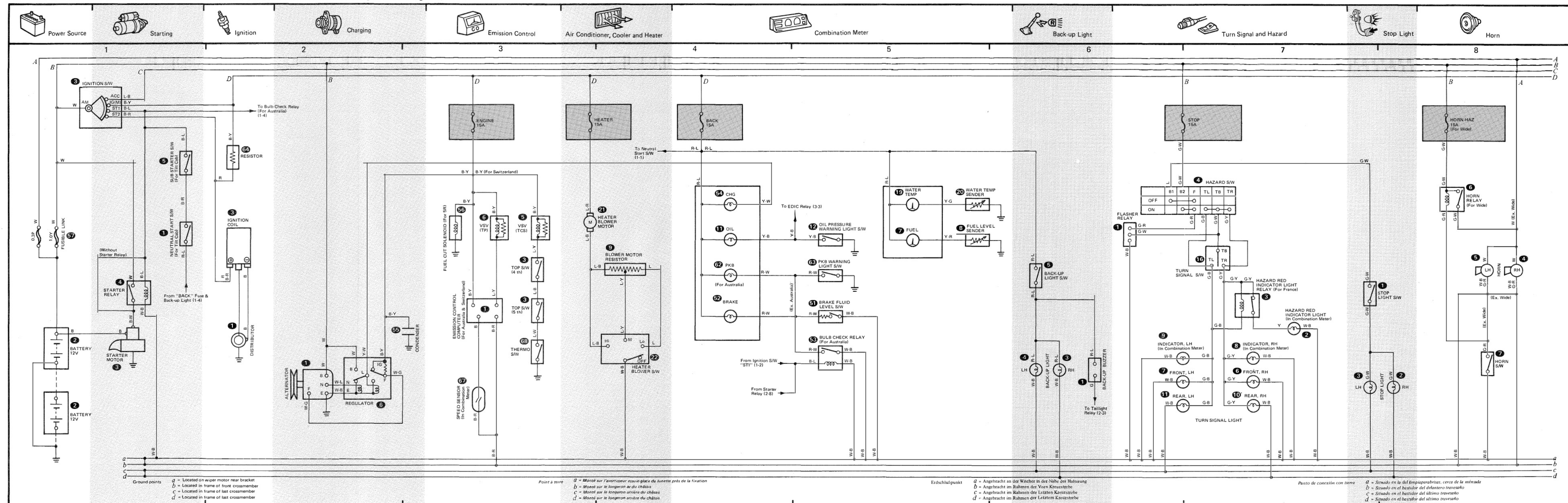


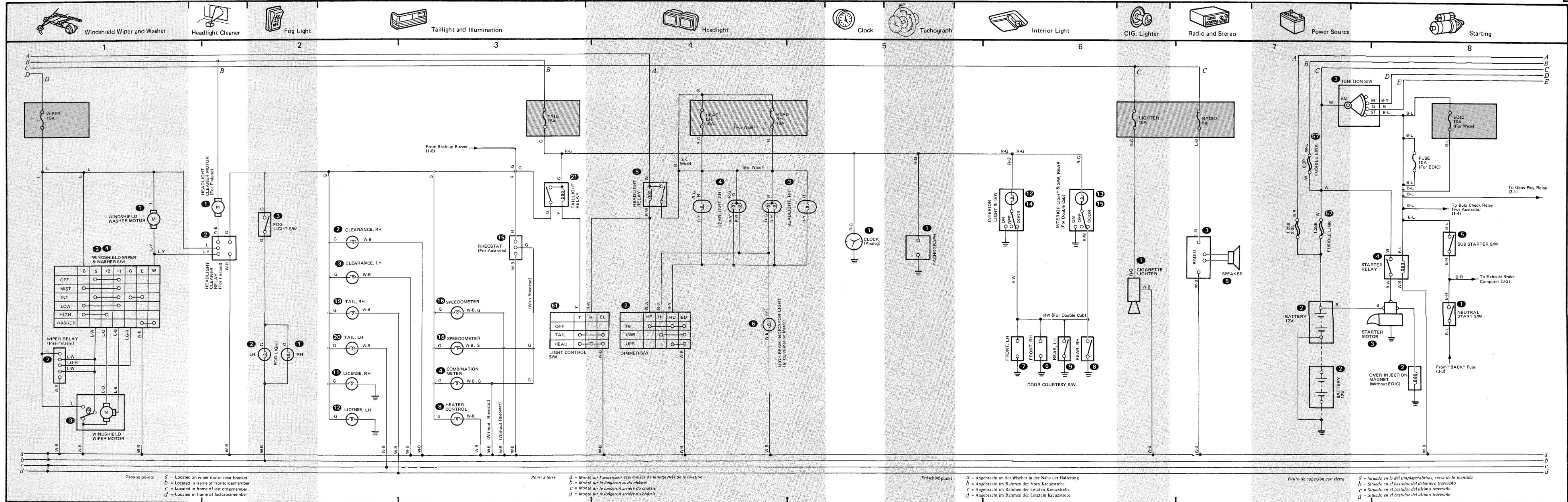
SYSTEM INDEX

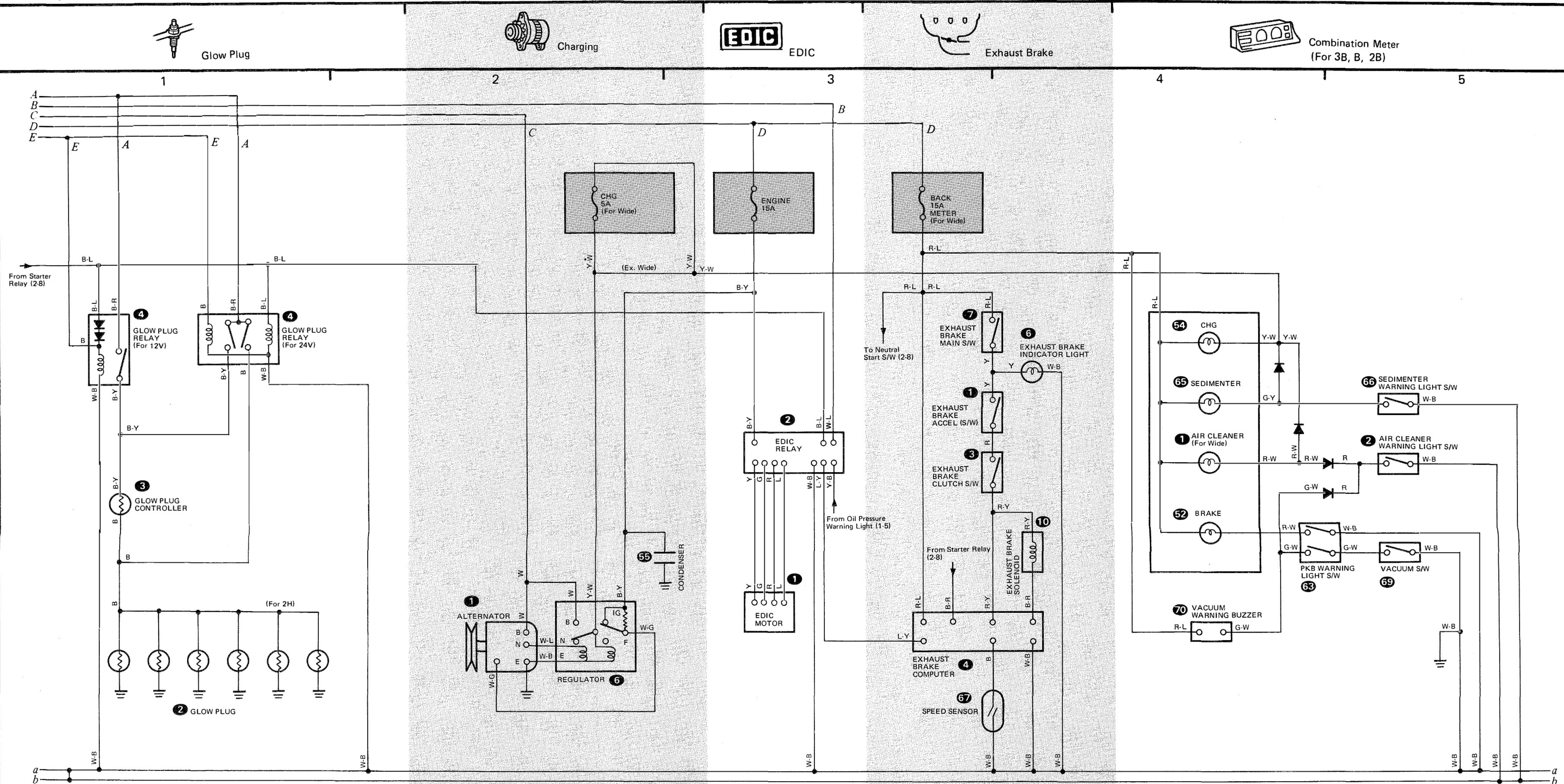
DYNA

1983 Production Vehicles (Page 1 to Page 3)

SYSTEMS		LOCATION	SYSTEMS		LOCATION
Air Conditioner, Cooler and Heater		1-4	Starting		1-1, 2-8
Back-up Light		1-6	Stop Light		1-8
Charging		1-2, 3-2	Tachograph		2-5
CIG. Lighter		2-6	Taillight and Illumination		2-3
Clock		2-5	Turn Signal and Hazard		1-7
Combination Meter		1-5, 3-5	Windshield Wiper and Washer		2-1
EDIC		3-3			
Emission Control		1-3			
Exhaust Brake		3-3			
Fog Light		2-2			
Glow Plug		3-1			
Headlight		2-4			
Headlight Cleaner		2-2			
Horn		1-8			
Ignition		1-2			
Interior Light		2-6			
Power Source		1-1, 2-7			
Radio and Stereo		2-7			







Ground points

a = Located on wiper motor near bracket
b = Located in frame of front crossmember

Point à terre

a = Monté sur l'avertisseur essuie-glace de lunette près de la fixation
b = Monté sur le longeron av du châssis

Erdschlußpunkt

a = Angebracht an der Wischer in der Nähe der Halterung
b = Angebracht im Rahmen der Vorn-Kreuzstrebe

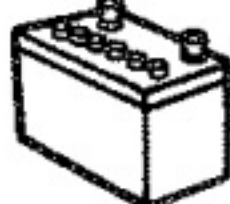
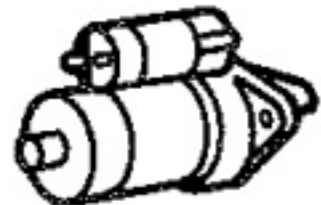
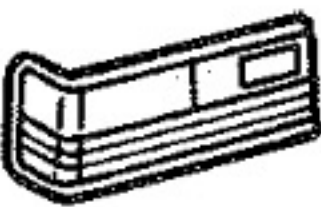
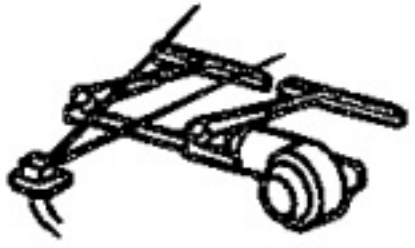
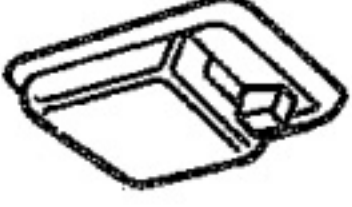
Punto de conexión con tierra

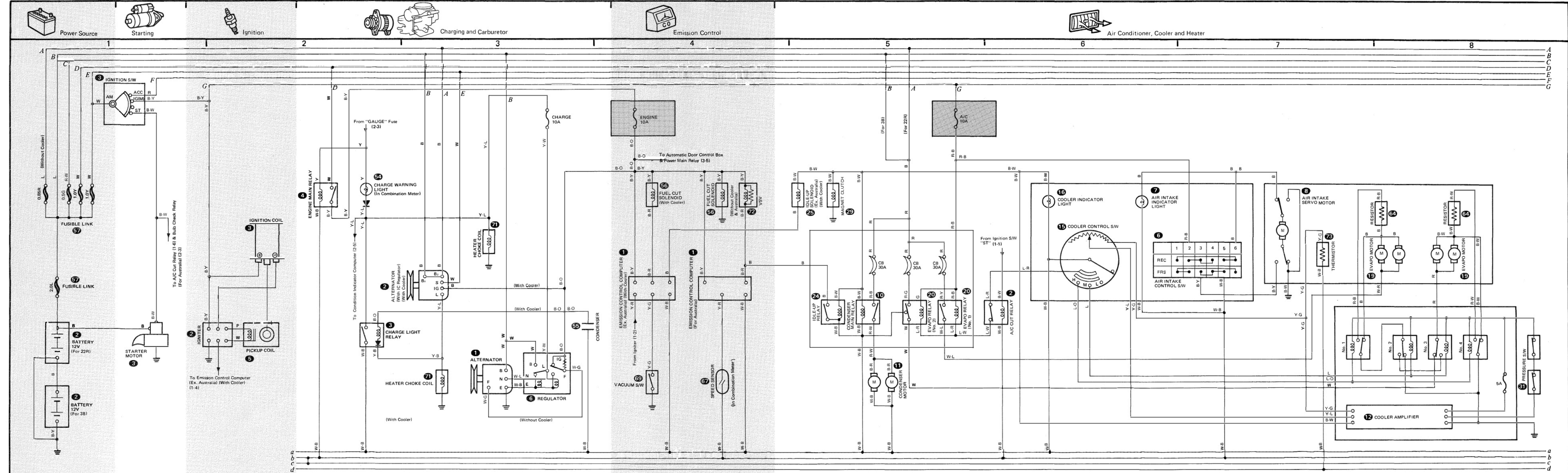
= Situado en la del limpiaparabrisas, cerca de la ménsula
b = Situado en el bastidor del delantero travesaño

SYSTEM INDEX

COASTER

1983 Production Vehicles (Page 1 to Page 4)

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 1-5, 2-1	Power Source	 1-1, 4-1
Automatic Door	 3-5	Radio and Stereo	 3-8
Back-up Light	 2-5	Rear Air Conditioner	 2-2
Carburetor	 1-3	Rear Wiper and Washer	 2-8
Charging	 1-3, 4-3	Starting	 1-1, 4-1
CIG. Lighter	 3-8	Stop Light	 3-2
Clock	 3-7	Taillight and Illumination	 3-3
Combination Meter	 2-3	Thermometer	 2-4
Condition Indicator	 2-5	Turn Signal and Hazard	 2-7
Defogger	 2-6	Windshield Wiper and Washer	 3-1
EDIC	 4-4		
Emission Control	 1-4		
Exhaust Brake	 4-5		
Glow Plug	 4-2		
Headlight	 3-4		
Horn	 2-7		
Ignition	 1-2		
Interior Light	 3-7		

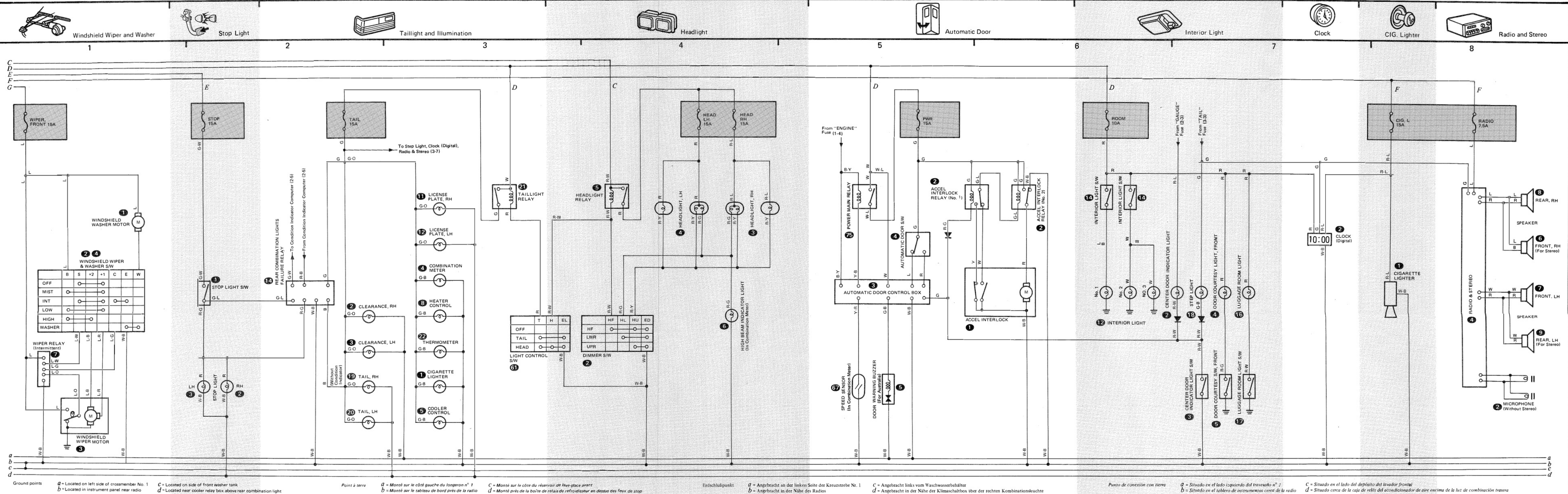


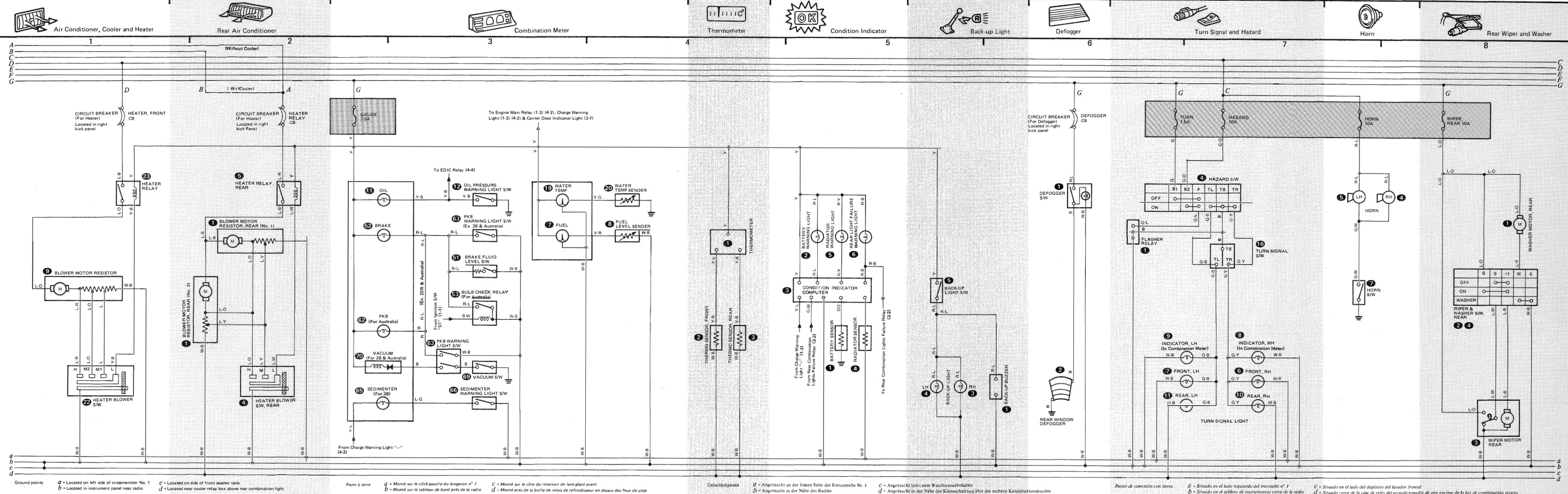
Ground points a = Located on left side of crossmember No. 1 b = Located in instrument panel near radio c = Located near side of front washer tank d = Located near rear combination light

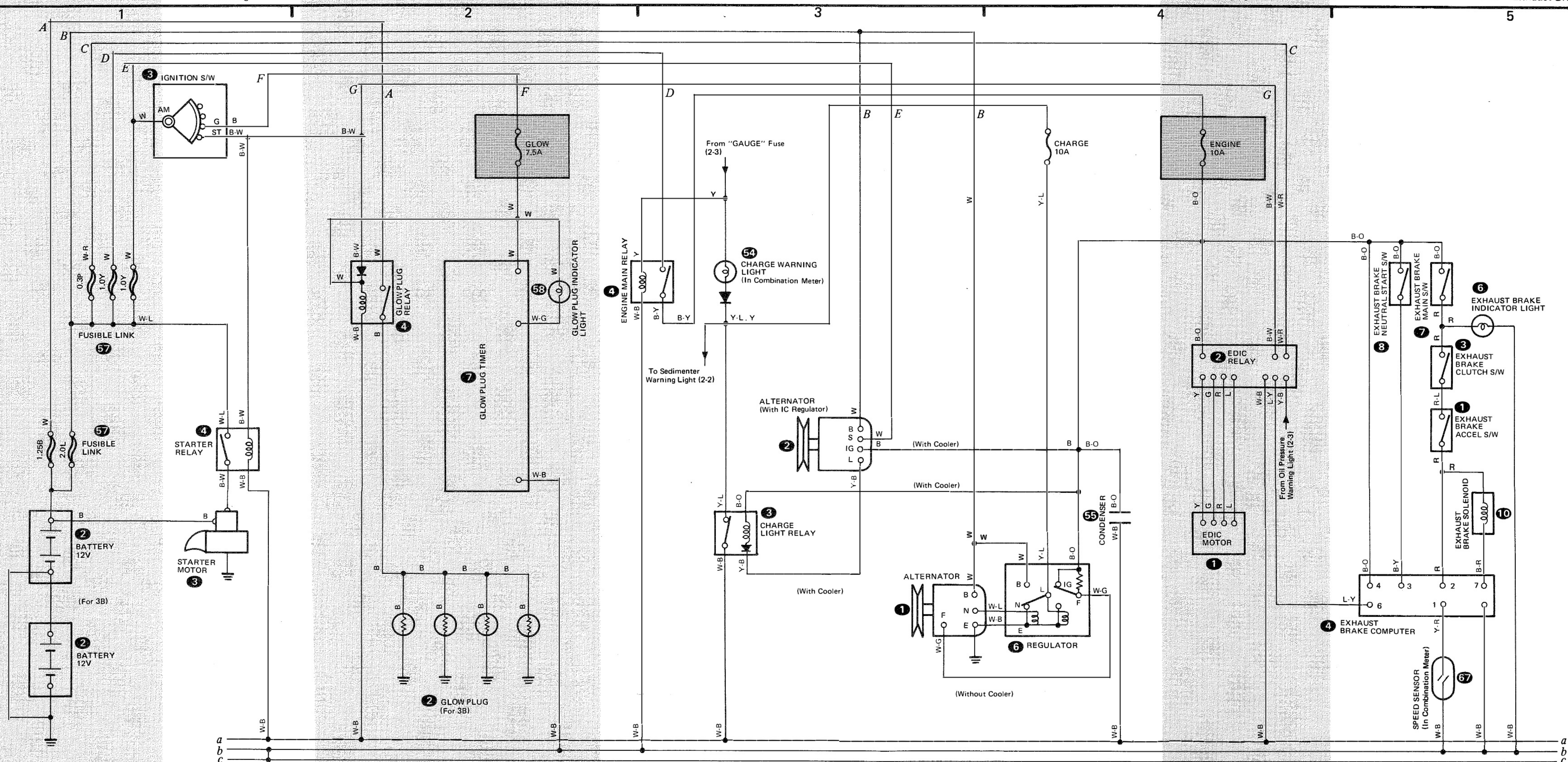
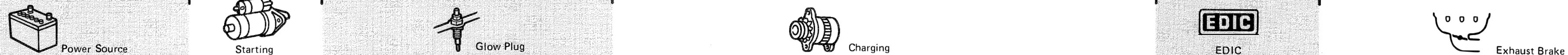
Point à terre a = Monté sur le côté gauche du longeron n° 1 b = Monté sur le tableau de bord près de la radio c = Monté sur le côté du réservoir de lave-glace avant d = Monté près de la boîte de relais de refroidisseur en dessus des feux de stop

Erdschlußpunkt a = Angebracht an der linken Seite der Kreuzstrebe Nr. 1 b = Angebracht in der Nähe des Radios c = Angebracht links vom Waschwasserbehälter d = Angebracht in der Nähe der Klimaschaltbox über der rechten Kombinationsleuchte

Punto de conexión con tierra a = Situado en el lado izquierdo del travesaño n° 1 b = Situado en el tablero de instrumentos cerca de la radio c = Situado en el lado del depósito del lavador frontal d = Situado cerca de la caja de relés del acondicionador de aire encima de la luz de combinación trasera







Ground points

a = Located on left side of crossmember No. 1
b = Located in instrument panel near radio
c = Located on side of front washer tank
d = Located near cooler relay box above rear combination light

Point à terre

a = Monté sur le côté gauche du longeron n° 1
b = Monté sur le tableau de bord près de la radio
c = Monté sur le côté du réservoir de lave-glace avant
d = Monté près de la boîte de relais de refroidisseur en dessus des feux de stop

Erdschlußpunkt

a = Angebracht an der linken Seite der Kreuzstrebe Nr. 1
b = Angebracht in der Nähe des Radios
c = Angebracht links vom Waschwasserbehälter
d = Angebracht in der Nähe der Klimaschaltbox über der rechten Kombinationsleuchte

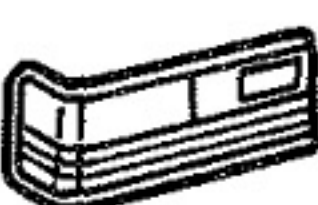
Punto de conexión con tierra

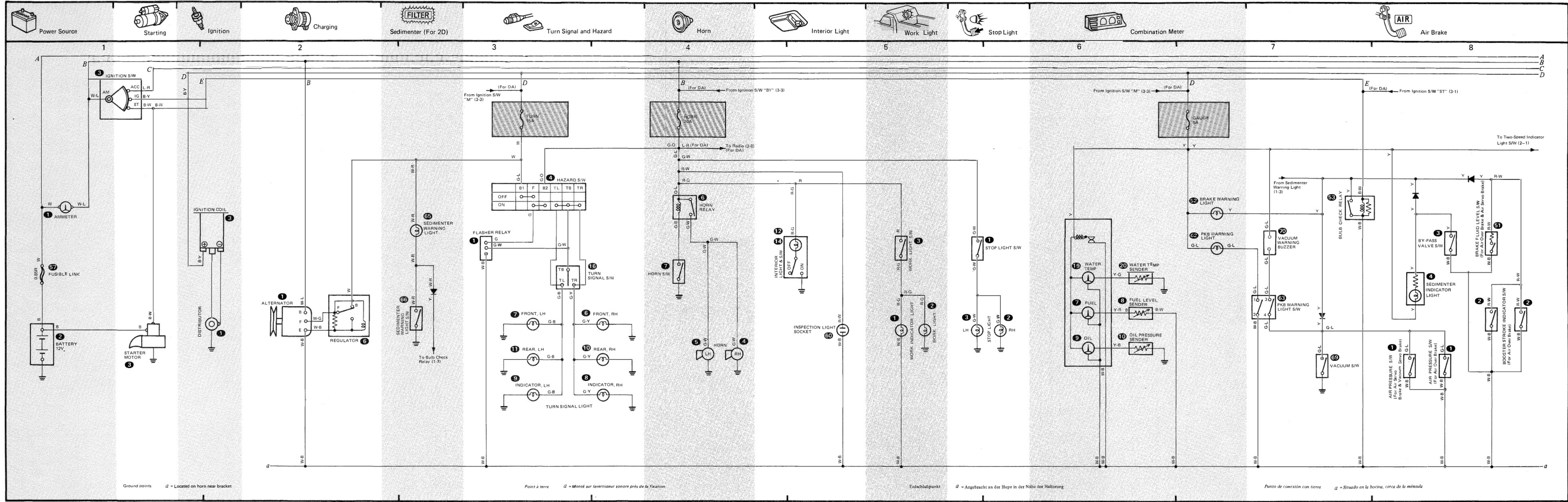
a = Situado en el lado izquierdo del travesaño n° 1
b = Situado en el tablero de instrumentos cerca de la radio
c = Situado en el lado del depósito del lavador frontal
d = Situado cerca de la caja de relés del acondicionador de aire encima de la luz de combinación trasera

SYSTEM INDEX

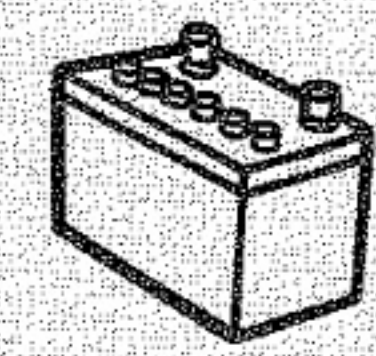
HEAVY-DUTY TRUCK DA, FA Series

1983 Production Vehicles (Page 1 to Page 3)

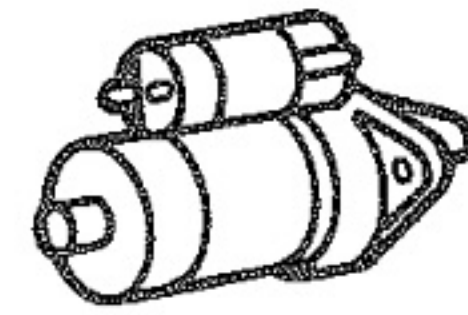
SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Brake	 1-8	Stop Light	 1-6
Air Conditioner, Cooler and Heater	 2-6	Tachograph	 2-2
Back-up Light	 2-2	Taillight and Illumination	 2-4
Charging	 1-2, 3-2	Turn Signal and Hazard	 1-3
CIG. Lighter	 2-8	Two-Speed	 2-1
Combination Meter	 1-6	Windshield Wiper and Washer	 2-7
Dump	 2-1	Work Light	 1-5
Exhaust Brake	 2-6		
Fog Light	 2-3		
Glow Plug	 3-3		
Headlight	 2-5		
Horn	 1-4		
Ignition	 1-2		
Interior Light	 1-5		
Power Source	 1-1, 3-1		
Radio and Stereo	 2-8		
Sedimenter	 1-3		
Starting	 1-1, 3-1		



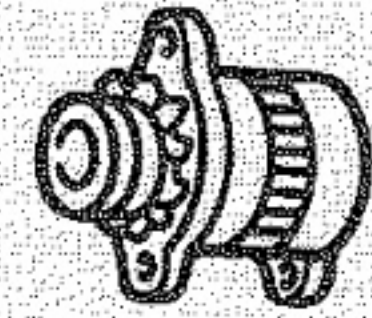




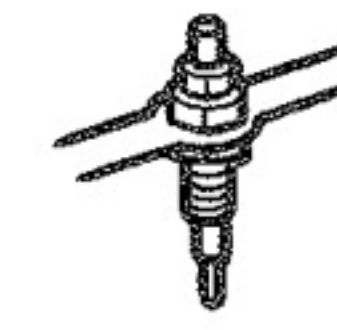
Power Source



Starting



Charging



Glow Plug

